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ABSTRACT

National estimates on physical health status, health problems, or abnormal conditions of approximately 13,887 noninstitutionalized American children, 6 to 11 years of age in 1963 through 1965, and adolescents, 12 to 17 years of age in 1966 through 1970, were derived from pediatric examinations in the National Health Examination survey and from parent ratings of children's present and past medical history. The two surveys involved samples of children and adolescents representative of the population with respect to such characteristics as age, sex, race, region, and size of place of residence. Major findings showed that parents considered 52% of the children (earlier survey) and 67% of the adolescents (later survey) to be in very good health; that pediatricians found only one of eight children to have one or more significant problems (such as cardiovascular or physical abnormality) compared with one youth in five for the older group; that serious accidents increased with consistent significance with increased age; that approximately 4% of both groups had hearing problems; and that 7% of the youths (slightly higher in the younger groups) had vision problems. Additional major findings indicated that Negro children and youths more frequently were found to be in the abnormal range than their white counterparts; that children in the West were less and children in the South were more frequently abnormal than children elsewhere; and that the proportion of abnormal conditions in children decreased consistently as family income level increased. (Appendixes contain tabular material such as statistical notes, history forms, and socioeconomic terms.) (MC)

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DATA FROM THE NATIONAL HEALTH SURVEY

Series 11-Number 128

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Examination and Health History Findings Among Children and Youths, 6-17 Years

United States

U. S. DEPARTMENT OF
HEALTH, EDUCATION, AND WELFARE
Public Health Service
Health Resources Administration

Series 11 reports present findings from the National Health Examination Survey, which obtains data through direct examination, tests, and measurements of samples of the U.S. population. Reports 1 through 38 relate to the adult program, Cycle I of the Health Examination Survey. The present report is one of a number of reports of findings from the children and youth programs, Cycles II and III of the Health Examination Survey. These reports are being published in Series 11 but are numbered consecutively beginning with 101. It is hoped this will guide users to the data in which they are interested.

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Data from the
NATIONAL HEALTH SURVEY

Series 11
Number 129

Examination and Health History Findings Among Children and Youths, 6-17 Years

United States

Diagnostic impression findings from the examination and medical history of the Health Examination Survey as rated by the parent among children in 1963-65 and youths in 1966-70 by age, sex, race, geographic region, and family income.

DHEW Publication No. (HRA) 74-1611

U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
Public Health Service

Health Resources Administration
National Center for Health Statistics
Rockville, Md. November 1973

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COOPERATION OF THE BUREAU OF THE CENSUS

In accordance with specifications established by the National Health Survey, the Bureau of the Census, under a contractual agreement, participated in the design and selection of the sample, and carried out the first stage of the field interviewing and certain parts of the statistical processing.

Vital and Health Statistics-Series 11-No. 129

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EXAMINATION AND HEALTH HISTORY FINDINGS AMONG CHILDREN AND YOUTHS

Jean Roberts, *Division of Health Examination Statistics*

INTRODUCTION

This report contains information on health status and health history in relation to the significant examination findings among children 6-11 years and youths 12-17 years in the United States, as estimated from the Health Examination Survey programs of 1963-65 and 1966-70, respectively.

The Health Examination Survey, through which these data were obtained, is one of the major programs of the National Center for Health Statistics, authorized under the National Health Survey Act of 1956 by the 84th Congress as a continuing Public Health Service activity to determine the health status of the population.

In carrying out the intent of the National Health Survey,[1] three different programs are used. The Health Interview Survey, collecting health information from samples of people by household interview, is focused primarily on the impact of illness and disability within various population groups. The Health Resources Statistics Division obtains health data as well as health resource and utilization information through surveys of hospitals, nursing homes, and other resident institutions and the entire range of personnel in the health occupations. The Health Examination Survey, from which the data in this report derive, collects health data by direct physical examination, tests, and measurements performed on samples of the population. The latter program provides the best way of obtaining actual diagnostic data on the prevalence of medically defined illnesses. This is the only one of the National Center for Health Statistics programs to secure information on unrecognized or undiagnosed conditions as well as on a variety of physical, physiological, and psychological measures within the population. Medical history, demographic, and socioeconomic data are also collected on the sample population under study with which the examination findings for those persons may be interrelated.

The Health Examination Survey is conducted as a series of separate programs, or cycles, each of which is limited to some specific segment of the United States population and to specific aspects of health. During the first cycle, the prevalence of certain chronic diseases and the distribution of various physical and physiological measures were determined among a defined adult population.[2,3]

This report is based on findings from the two programs of the Health Examination Survey which followed the first cycle. For the second cycle, a probability sample of the noninstitutionalized children 6-11 years of age in the United States was selected and examined. In the third cycle, a similarly designed probability sample of the noninstitutionalized youths 12-17 years of age in the United States was selected and examined. The two programs were developed to obtain basic measures of growth and development as well as data on other health characteristics for the entire continuum of childhood through adolescence. The questionnaire and examination content and procedures were specially adapted for each of the

two age groups, taking into account the differences in the health, mental, and behavioral characteristics of children and youths. The examinations included those given by a pediatrician who was assisted by a nurse, those given by a dentist, tests administered by a psychologist, and a variety of tests and measurements by laboratory X-ray technicians. The survey plan, sample design, examination content, and operation of these surveys have been described in previous reports.[4,5]

Field collection operations for the children's cycle started in July 1963 and were completed in December 1965. Of the 7,417 selected in the sample, 7,119 children, or 96 percent, were examined. This national sample is closely representative of the roughly 24 million noninstitutionalized children aged 6-11 years in the United States with respect to age, sex, race, geographic region, population size of place of residence, and rate of population change in size of place of residence from 1950 to 1960.

Data collection in the youths' cycle began in March 1966 and was completed in March 1970. For this program 7,514 youths were selected in the sample of whom 6,768, or 90 percent, were examined. This national sample is closely representative of the 22.7 million noninstitutionalized youths 12-17 years of age in the United States with respect to the same characteristics as those indicated for the children's survey. The sample design for the youths' survey provided for use of the same sampling areas and housing units as the preceding survey among children. As a result nearly one-third of the youths in the later study had also been examined in the children's survey. The time lapse between the two examinations ranged from 28 months to 5 years, with a median time lapse of about 4 years.

In each of these survey programs, examinations were conducted consecutively in 40 different locations throughout the United States. During his single visit, each child or youth was given a standardized examination by the examining team in the mobile units specially designed for use in the survey. (During the third cycle only, girls whose urine specimens were found positive for bacteriuria were brought back for repeat urine tests.) Prior to the examination, demographic and socioeconomic data on household members as well as medical history, behavioral, and related data on the child or youth to be examined were obtained from his parents. An additional Health Habits and History form was also completed by the youth before he arrived for the examination and a Health Behavior form was completed by him while in the examination center. Ancillary data were requested from the school attended by the child or youth; these included his grade placement, teacher's ratings of his behavior and adjustment, and health problems known to his teacher. A birth certificate was obtained for each child and youth for verification of his age and information related to his condition at birth. Statistical notes on the survey design, reliability of the data, and sampling and measurement error are shown in appendix I.

DATA SOURCES

Medical History

Children.—At the time of the initial visit to the sample household, an interviewer from the U.S. Bureau of the Census left a self-administered Medical History form (appendix II) with the parents for each eligible child. These were picked up about a week later by the Health Examination Survey representative, who reviewed them and assisted the parents in completing any incomplete or inconsistent entries.

The questions from the medical history of the child considered in this report include any accidental injuries or infective childhood diseases, allergies, chronic conditions, or operations the child may have or have had; whether or not the child has ever been hospitalized at least overnight; whether his exercise is or has ever been restricted because of his health; the parent's impression of the child's present health status, anything about his health that is presently a worry; and whether the child is bothered by recurrent upper respiratory infections.

Youths.—The Medical History for youths obtained from the parent during the 1966-70 survey was generally similar in content with respect to health history and health status to that obtained for children in the 1963-65 survey, and the questionnaires were self-administered in a similar manner in both surveys. Excluded from the ques-

tionnaire for youths were the specific questions with respect to recurrent upper respiratory infections and certain other diseases where the prevalence was known to be substantially lower among youths than children.

Physical Examination

Children.— The examining physician with the survey team was either a senior resident or fellow in pediatrics who had been given special training in the standardized physical examination used in the survey. The medical history filled out at home by the parent or guardian for each child was available for review on the night before the examination. The examination was done according to predetermined standardized procedures with no subsequent examination to clarify the initial diagnostic impression.

The purposes of the physical examination were to (1) identify examinees considered normal within the limitations of this examination; (2) detect acute conditions (particularly of the eyes, nose, throat, and ears) which might affect other parts of the examination, (3) identify insofar as possible examinees with heart disease and neurological, muscular, and joint conditions, the major results of accidents or injuries, and observable congenital malformations; and (4) to detect fever, asthma, epilepsy, and any other condition the examining pediatrician considered a contraindication to exercise.

The physician recorded his findings based on his own best judgment and medical skill, without attempting to "compensate" for lack of followup. As a result the cases that were "overdiagnosed" (relative to what might be revealed by more followup evaluation) may have been to some extent offset by cases that are, in the same terms, "underdiagnosed."

Included in the pediatrician's examination was an assessment of the general appearance of the child with respect to tics, mannerisms, and physical deformities; tests of the general functioning and other abnormalities of the joints and muscles; a limited neurological and cardiovascular examination; and an examination of the eyes, ears, nose, and throat. In the neurological examination when any abnormality indicating the presence of cerebral dysfunction (cerebral palsy, mental retardation) or other neurological condition was noted, additional procedures to confirm the impression were done.

The general inspection included an observation of the gait, general appearance, and observable physical deformities, observation for tics or mannerisms and for evidence of finger sucking or nail biting, and notation as to evidence of breast development, abnormalities, and presence of axillary hair.

In the examination of joints and muscles, the examinee performed various specified movements which the physician observed for evidence of abnormality. Additional procedures were introduced by the examining physician to confirm or rule out suspected abnormal conditions.

The eye examination included a careful inspection for evidence of styes, conjunctivitis, blepharitis, nystagmus, ptosis, and strabismus. In testing for strabismus, the pediatrician used the Hirschberg method (corneal light reflex), the moving light test, and the cover test. When strabismus was found, the location, type, and confirming tests were recorded.

For the examination of the ear, nose, and throat, the pediatrician used a Welch-Allyn pneumatic otoscope in addition to a Siegle's otoscope and head light. This part of the examination included an evaluation of the condition of the drum, auditory canal, and external ear, as well as an inspection of the oral pharynx, tonsils, and nose.

The cardiovascular examination included the pediatrician's listening for and recording a detailed description of the heart sounds, innocent as well as significant murmurs, recording of a phonocardiogram and a 10-lead electrocardiogram. Two blood pressure readings were taken by the nurse in a standardized specified manner.

On the basis of the findings from his examination, data from other tests, and procedures in the total examination and the history, the pediatrician recorded his diagnostic impressions for each child of either normal or, if not, of the specific conditions found. For those children he did not rate as normal, the examining physician further differentiated between those whose physical condition he definitely considered abnormal and those with findings that were not significant.

In recording his impressions he was requested not to consider ear conditions when as-

sessing the child as "normal" unless the examinee had a congenital malformation of the ears. The specific findings from the ENT examination were recorded separately.

Prior to the examination, any child whose temperature was 100° or over and whom the staff pediatrician considered either too sick to examine further or to possibly have a contagious disease was taken home and rescheduled for examination later.

The pediatrician also completed a summary of findings for the child's physician (when parental consent was obtained for this) limited to the results of procedures not ordinarily done in the usual pediatric examination such as electrocardiogram and audiometric examination and any medical findings not already reported as known in the parent's medical history for the child. Whenever he tentatively diagnosed a previously unsuspected condition which he felt required special followup (e.g., heart disease with X-ray or electrocardiogram findings), the staff pediatrician would also telephone the child's own physician to apprise him of the findings.

For those children whose parents had not given a signed consent for such contact with their own physician, the parents were notified by telephone whenever an acute condition requiring medical care was found in the examination.

Youths.—As in the children's survey, the examining physician with the youth survey team was either a senior resident or fellow in pediatrics from a selected medical center, school, or hospital who had been given special training in the standardized physical examination used in the survey, including a brief training in special areas of adolescent medicine particularly with respect to maturation grading, otolaryngology, and dermatology. On the day before the scheduled examination, the Medical History of Youth and the Health Habits and History-Youth forms were reviewed by the examining physician, who paid special attention to any entries suggesting a limitation on the youth's ability to perform any of the tests or procedures and to items which might require further followup in the course of the examination.

The physician's examination included an eye, ear, nose, and throat examination, check for goiter, musculoskeletal and neurological evaluation, cardiovascular examination, grading of facial acne, assessment of sexual maturation, and an appraisal of nutrition. During the examination, the nurse drew a sample of blood (later used to determine hematocrit and hemoglobin, levels of cholesterol, uric acid, serological tests for syphilis, testosterone levels in boys, protein-bound iodine, and for genotype determinations of blood groups), obtained the three blood pressures (supine before the examination and in both supine and sitting positions after the examination) and for the female examinees completed the menstrual history questionnaire and collected a urine specimen for culture of bacteriuria.

The eye examination included a careful inspection for evidence of abnormal conditions of the lids, conjunctivae, sclerae, pupils, and irides; a cover test for the presence of any tropia; an inspection of the conjugate gaze; and determination of the focusing or dominant eye.

In the limited neurological examination, the physician, after reviewing the total history and testing a minimal number of reflexes, performed the neurological tests necessary to satisfy himself that no significant neurological abnormality existed or when one apparently did to delineate clearly the nature and extent of the abnormality, much as he would do in a clinical setting. He used a number of simple procedures to obtain clues about possible musculoskeletal problems, such as loss of range of motion in a joint or muscle weakness. On the basis of these minimal screening techniques, coupled with the physician's judgment and skill in undertaking and interpreting any further tests, he rated the child as normal in these respects or if abnormal, he described the neurological problem. Mental retardation with or without abnormal neurological findings was recorded even though the physician's appraisal at that point could be only tentative.

The musculoskeletal examination consisted of having the examinee put his wrists, elbows, shoulders, hips, knees, and ankles through a full range of motions by a series of actions including bending forward, abducting legs and arms, squatting, and touching toes. If unable to squat or fully abduct his legs, the hip was investigated by performing the Thomas test. Both tibial tuberosities

were palpated for tenderness and swelling as definite evidence of past or present Osgood-Schlatter disease.

For the ear, nose, and throat examination there was a general inspection of the external ear, routine otoscopic examination of the external auditory canals and tympanic membranes, pneumatic otoscopy, and examination of anterior nares, tonsils, and oral pharynx.

The breast examination on males was performed by inspection of both areolae and palpation of breast tissue for gynecomastia and tenderness. For females, maturation was graded and the breasts and axillae palpated for masses.

For both sexes, the genital examination consisted of evaluation of the stage of maturation based on the presence and distribution of the pubic hair. Further examination of males involved an inspection of the genitalia for circumcision and grade of maturation, the usual check for hernia, and palpation of the testicles for masses.

The cardiovascular examination was a routine auscultation of the heart. When the physician considered findings from this part of the examination to be significant or even possibly significant, he made a tentative diagnosis.

The examining physician then made a summary of his findings based on his training and clinical judgment, the youth's medical history, his own examination, the hearing and vision tests, and other data available to him from the other examination procedures. From these he decided whether or not the adolescent was basically healthy, developing satisfactorily, and growing normally, excluding from consideration mild, transient problems such as minor cuts or bruises, fractured bones that healed without complications, and colds. Criteria regarding findings affecting normal growth were interpreted broadly to include all but the minimal and questionable findings which did not appear to offset normal growth, development, or function.

As in the children's examination when the parent gave consent for this, the youth's own physician was sent a summary of the youth's examination findings and related test results as well as a photographic copy of the chest X-ray. The survey examining physician noted on the summary any condition of serious intercurrent illness or new complication of known disease which may not be known to his own physician. In addition where warranted for an acutely ill youth, the examining physician called the youth's own physician to apprise him of his findings and arranged for the immediate referral of the youth to his own physician for indicated care.

FINDINGS

Health Status

Information on the physical health and health problems or abnormal conditions of children 6-11 years of age in 1963-65 and of youths 12-17 years of age in 1966-70 was determined in a standardized examination given by specially trained pediatricians in both studies. In addition, the parent was asked prior to the examination to complete a self-administered medical history in which they rated the present health of the child on a 4-point scale (very good, good, fair, or poor); that of the youth on a 5-point scale (poor, fair, good, very good, or excellent); and for both groups to indicate whether or not there was anything about the prospective examinee's health that worried the parent.

Children.—Over half of the American children 6-11 years of age (52 percent) were considered by their parents to be in very good health while 5 percent were rated as in fair or poor health (table 1). These findings which indicate that an estimated 12.4 million children were rated as in very good health and 1.3 million in fair or poor health are based on data from the medical history completed by the parent in the Health Examination Survey of 1963-65 among a national probability sample of the 24 million noninstitutionalized children in the United States.

Boys were about as likely as girls to be considered in very good health (51.6 percent compared with 51.8 percent) and nearly as likely to be rated in fair or poor health (5.2 percent, boys; 5.5 percent, girls), the differences in rates for boys and girls being negligible.

No consistent trend by age in either extreme of this health status rating was found over the 6-11 year range among either boys or girls or for the total group (table 1 and figure 1).

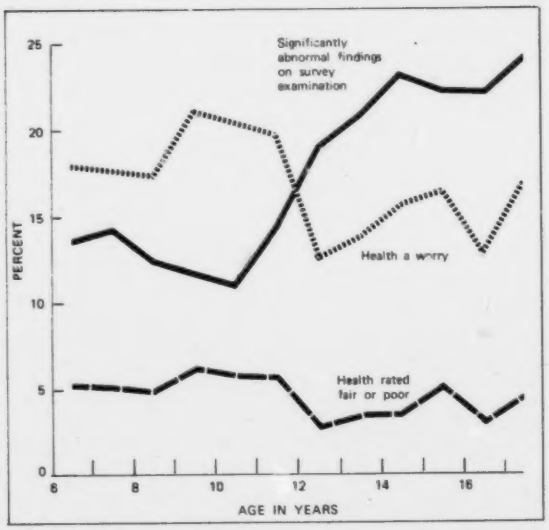

Figure 1. Percent of U.S. children in 1963-65 and youths in 1966-70 with significantly abnormal findings on survey examination and parent ratings of fair or poor health or health a worry, by age.

Parents of nearly one-fifth of these children (19 percent) were concerned or worried about some aspect of the health of their children at the time of this study (table 1 and figure 1). The health of the older children 9-11 years was more likely to be considered a worry than that of the children 8 years of age or younger (20-21 percent compared with 17-18 percent), the difference exceeding the 95-percent confidence limit for such an estimate or being significant at the 5-percent level. Greatest concern was evident for 9- and 10-year-old girls and for 9- and 11-year-old boys. The health of boys was as likely to be a worry to their parents as that of girls (19 percent), and while some differences between the two groups at individual years of age were found across the age range, they were neither consistent nor significant.

A strong, positive relationship, though not complete agreement, may be seen in table 2 and figure 2 between parent ratings of their children's health on these two questions ($\chi^2_3 = 975$, $p < .00001$). The health of nearly all those children whose health was rated as poor and of a substantial majority rated as fair was a worry to their parents (93 and 70 percent, respectively). The proportion of children whose health was a worry decreased significantly with each successive improved rating of health status to less than 9 percent among the group whose health was considered very good. This pattern was similar among boys and girls and across the entire age range.

On direct examination, the survey pediatricians found one child in eight or an estimated 3.1 million in the population 6-11 years of age to have some significant physical abnormality—11 percent with some cardiovascular, neurological musculoskeletal or other condition (not including serious ear infections) and an additional 2 percent with an acute condition classed as severe otitis media (table 1 and figure 3). This did not include about 1 percent of the children (1.1 percent) who had findings rated as "not significant."

Boys were slightly more likely than girls to have such abnormal findings (14 percent compared with 12 percent) as were the oldest and the youngest children in the study, the 11-year-olds and those aged 6-8, though the differences are generally not statistically significant at the 5-percent probability level (table 1 and figure 1).

The extent of agreement between parent ratings of the health of their children and their physical examination survey findings may be seen

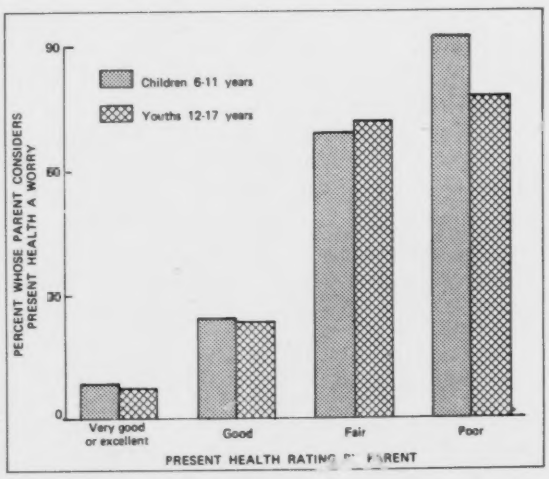

Figure 2. Percent of U.S. children in 1963-65 and youths in 1966-70 with health a worry to parents, by parent ratings of present health status.

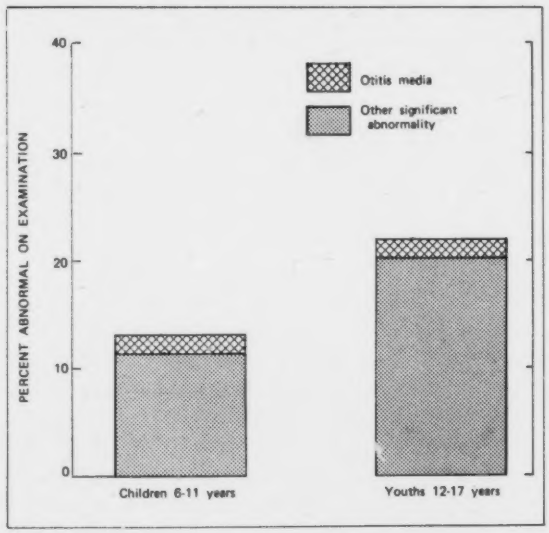

Figure 3. Percent of U.S. children in 1963-65 and youths in 1966-70 with significantly abnormal findings on survey examination.

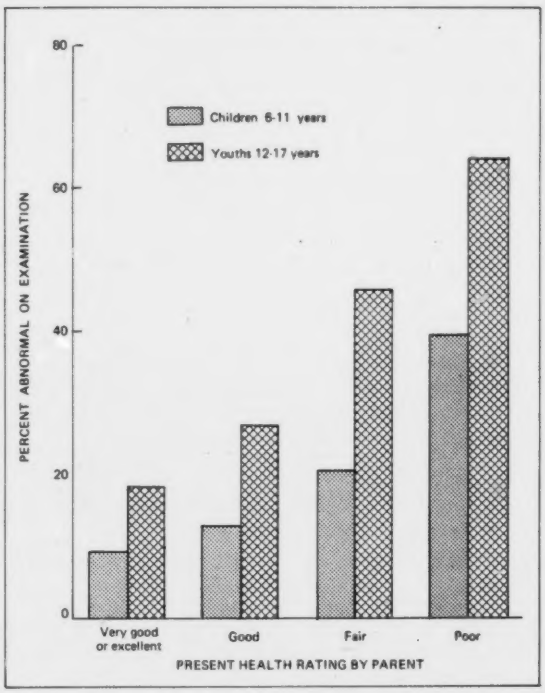

Figure 4. Percent of U.S. children in 1963-65 and youths in 1966-70 with significantly abnormal findings on survey examination, by parent ratings of present health status.

in table 2 and figures 4 and 5. While a strong positive association will be noted—the children rated as in poor or fair health and those about whose health their parents were concerned were significantly more likely than the others to have a significant physical abnormality found on examination—it is the lack of better agreement between parent ratings and examination findings that is of primary interest here in assessing the true health status of the child population. Among those children whose health was considered to be of concern or to be fair or poor, only 17 percent, 20 percent, and 40 percent, respectively, had significant physical findings on examination. It should be kept in mind here that the parent ratings of health would probably be influenced by whether or not the child was receiving care or treatment and would have taken into consideration both physical and mental health while the examination was generally limited to the identification of primarily physical abnormalities (although apparent mental retardation would have been noted); this may account for part of the lack of agreement.

However, among those children about whose health parents were not worried or who rated their child's health as good or very good, 10 percent, 12 percent, and 9 percent, respectively,

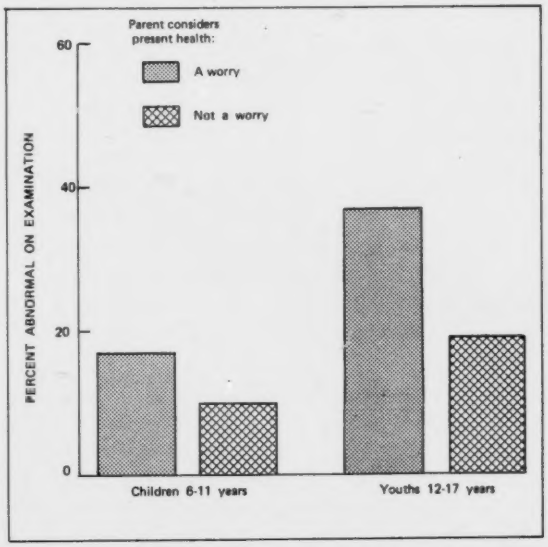

Figure 5. Percent of U.S. children in 1963-65 and youths in 1966-70 with significantly abnormal findings on survey examination among those whose parents were and were not worried about their health.

were found to have some significant abnormal condition on examination.

Information was not available regarding whether the abnormal conditions found on examination were known or under treatment (unless the history indicated this for chronic conditions such as asthma or heart trouble).

Youths.—About two-thirds (67 percent) of American youths 12-17 years of age were rated by their parents as being in very good or excellent health, while 4 percent were considered as being in fair or poor health, on the basis of findings from the Health Examination Survey of 1966-70 among a national probability sample of the 22.7 million noninstitutionalized youth in the United States (table 1). Thus there were an estimated 15.2 million youths rated as in at least very good health and 0.8 million in fair or poor health at the time of this survey.

Boys of this age were more likely to have their parents rate their health as excellent or very good (69 percent) than were girls (65 percent), the difference being statistically significant at the 5-percent probability level; while at the other extreme proportionately nearly as many boys (3.4 percent) as girls (3.8 percent) were considered to be in fair or poor health.

No consistent age-related trend for the entire group is evident in the proportion with at least very good or fair to poor health. However, boys under the age of 16 were more likely than girls of the corresponding age to be considered in at least very good health. Some aspect of their health was a worry to the parents of about one youth out of seven of this age (15 percent). A slight but insignificant increase in this rate with increase in age up to 15 years may be seen in table 1 and figure 1. The trend among boys is generally similar to that among girls except at age 17, where the health of proportionately more boys than girls is a concern (19 percent compared with 15 percent).

Lack of complete agreement but a strong association between these two ratings of health of youths similar to that for children may be seen in table 2 and figure 2 ($\chi^2_4 = 1064, p < .00001$). The proportion of youths whose parents were worried about their health decreased steadily from 78 percent among those whose health had been rated as poor to 3 percent among those considered in excellent health, though unlike the findings for children, there was a negligible difference between the proportions of those youths in fair and poor health.

On examination, the survey pediatrician found more than one youth out of five, or an estimated 4.9 million in this country, to have some illness, deformity, or handicap (primarily physical) affecting normal growth, development, or function—cardiovascular, neurological, musculoskeletal, or other, including the nearly 2 percent with symptoms of acute otitis media (table 1). This rate of abnormality is nearly double that found among children primarily because of conditions associated with the onset of puberty in adolescence, including acne and other maturation problems.

As in the earlier children's examination, boys were slightly more likely than girls to have such findings (23 percent compared with 21 percent), though the difference in rates is not statistically significant. Younger youths, 12 years of age, were also slightly less likely than the older youths, particularly the 17-year-olds to have abnormal findings, but again the differences are not large enough to be statistically significant (table 1 and figure 1).

While proportionately more youths than children were abnormal on examination, the extent of agreement or lack of agreement between parent ratings of health and examination findings of physical abnormality are similar (table 2 and figures 4 and 5). Among those youths whose health was of concern to their parents and those whose health was rated fair or poor, 37 percent, 46 percent, and 64 percent were considered abnormal on examination. Again, as with the children, part of the lack of better agreement here may be due to the limitation of the examination to primarily physical findings (including apparent mental retardation) while the parent rating undoubtedly took into consideration both the physical and mental or emotional condition of the youth. This, of course, will not explain the fact that among youths whose parents were not concerned about their health or whose health was rated as good, very good, or excellent, the proportion of youths with significant abnormal findings on the primarily physical examination was 19 percent, 27 percent, 20 percent, and 17 percent, respectively. As in the children's study, data were not available re-

garding whether the abnormal conditions found on examination were known previously or under treatment (except as noted for such chronic conditions as asthma or heart trouble).

Children-youths.—The disparity between the children and youths both with respect to parent ratings of health and physical examination findings is readily apparent here. As has been indicated previously, none of the three assessments show the consistent age-related trend that might have been expected if this represented a gradual trend in health status or parent's attitude toward it with age of the child. There was no evidence in the present study of any increase with age in the proportion of children found abnormal on examination similar to that reported by Yankauer, Lawrence, and Ballow[8] in their Rochester, New York, study of 1952-55, where increment of new adverse conditions between first and fourth graders exceeded the number corrected so that relatively more adverse conditions were present at the end of the period (fourth grade) than at the beginning (first grade). Indeed in the present study any such excess did not start to appear until a year or two later.

Further evidence of differences in parental attitude toward their child's health and either condition of the examinees or content of the examination may be seen in the findings for the nearly one-third of the United States youths 12-17 years old who had also been selected and examined in the previous survey on the average of 3-4 years earlier when they were in the 6-11 year age range (table A). At the time of the survey among youths, the distribution of parent ratings of their health status and the proportion considered significantly abnormal on examination among this subgroup of youth did not differ appreciably (it was within the 95-percent confidence limit for this estimate) from the corresponding findings for youths who had not been included in the previous survey. Similarly for this group in both surveys, at the time of the children's study the distribution of parental ratings of their health and the proportion found significantly abnormal on examination was in good agreement with the

Table A. Percent of children and youths examined and not examined in both 1963-65 and 1966-70 surveys, by parent ratings of their health and proportion significantly abnormal on survey examination: United States

Medical history or examination item	Examination in 1966-70		Examination in 1963-65	
	Youths not examined in 1963-65	Youths also examined in 1963-65	Children not examined in 1966-70	Children also examined in 1966-70
	Percent			
Parent rating of examinee's health:				
Excellent	32.0	35.0	---	---
Very good	33.7	34.4	50.9	53.8
Good	30.3	27.9	43.7	41.3
Fair	3.6	2.6	5.0	4.7
Poor	0.4	0.1	0.4	0.3
Parents considered examinee's health a problem	15.0	13.7	19.2	18.7
Abnormal on examination	22.0	21.3	10.8	12.2
Proportion in group	67.8	32.2	69.4	30.6

corresponding findings among children who were not reexamined in the later study.

Parents tended to rate the health of youths in their families significantly better than the health of children both when giving a categorical statement of health status and when indicating whether or not aspects of the examinee's health were a concern or worry. Aside from the time lag between the two studies—1963-65 and 1966-70—during which there might have been some attitude or informational changes on the part of the parents, there was a slight difference in the order and context in which these questions were presented in the self-administered medical history forms of the two surveys (appendix II) that may have influenced response to some slight extent. It seems more probable that this reflects a change in attitude or concern by parents at about the time children have completed grade school and have gone on to junior high school, whether because of increased maturity of the child or because more of the abnormal conditions were under care.

With respect to the examination findings, the survey pediatricians rated substantially more youths than children as having some significant abnormality, even when compensation is made in the children's examination because of the fact that severe ear pathology was recorded separately and not included in the physician's overall diagnostic impression of the condition of the child. Much of the difference is to be found in the conditions associated with the onset of puberty or other aspects of maturation.

Some assessment of the reliability of the examination findings among youths, but not children, was possible. During the survey of youths, replicate examinations were performed on 4.5 percent of the examinees. Comparison of the diagnostic impressions from these two examinations by the same or different examiners showed a high level of agreement for such assessments—69 percent considered essentially normal on both examinations, 15 percent abnormal (significantly) on both, 7 percent abnormal only on the original examination, and 9 percent only on the reexamination. (Since the questionnaires were not readministered, no similar measure of reliability of the health ratings by parents was obtained.) Whether the differences in the abnormal rate between the two examinations reflects differences in training, expertise, or attitudes of the examiners, chance differences because of the imperfect reliability of the examination or real differences in the condition of the two study groups, or a combination is not readily evident from the data available.

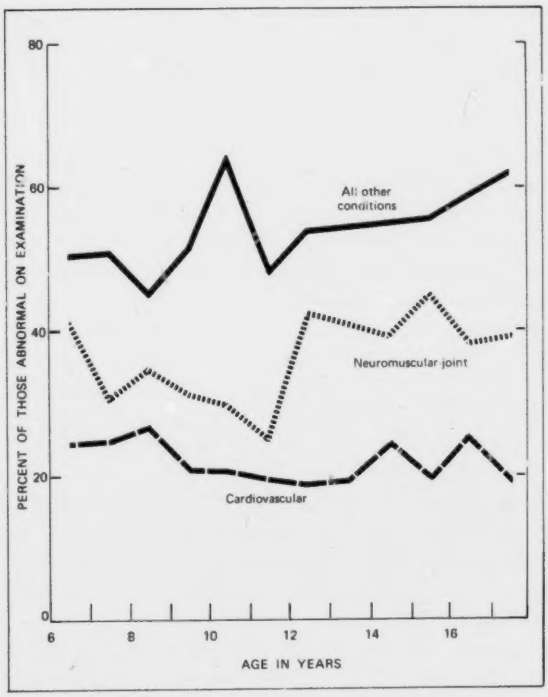

Figure 6. Percent of U.S. children in 1963-65 and youths in 1966-70 with significantly abnormal findings on survey examination, by type of condition.

When comparison is made on the basis of the broad groups of conditions for which diagnostic impressions were given, the prevalence of cardiovascular conditions was significantly greater among youths than children, consistent with medical history data on these conditions though the proportion of the abnormal group in both examinations with such conditions was similar (tables 1 and 3 and figure 6). The prevalence of significant neuromuscular-joint conditions as well as the actual proportion of such conditions found among abnormal examinees were both significantly greater among youths than among children.

Comparison with previous studies are difficult because of differences in examination con-

tent or methods. Yankauer and Lawrence[9] found 21 percent abnormal on examination among the sample of 1,056 Rochester, New York, first graders examined in 1952-53—substantially more than the 11 percent rate among 6-year-olds in the present study. In the Rochester study a child was classed as abnormal if he or she had any condition affecting health and justifying medical care or observation. Excluded, as in the present study, were acute infections, dental caries, defective vision or hearing that would be evident through testing, or abnormal laboratory findings.

From the Head Start program in California, Gilbert et al[10] reported 17 percent of the preschool children, who would have been primarily but not exclusively the underprivileged, to have been considered significantly abnormal on examination. Since these include both medical and dental findings, the rate among the California children is more nearly comparable with findings from the present study.

The Commission on Chronic Illness studies in Baltimore[11] and in Hunterdon County[12] indicate that from the clinical evaluations of the children under 15 years, 17 percent in the Baltimore study had substantial chronic conditions and 15 percent in Hunterdon County were at least somewhat limited in school attendance or participation by their conditions.

Despite these unexplained differences in overall findings between children and youths, the relationship between parent ratings of health and the examination findings of physical abnormality are of the same order of magnitude in both surveys.

Medical History

The medical history completed by the parent prior to the examination in both surveys obtained information on the history of the child or youth concerning the more prevalent childhood infectious diseases, serious accidental injuries, allergies and related conditions, chronic kidney or heart conditions, respiratory conditions, and sensory-neurological conditions. Information was also obtained on the extent of medical and related care required as determined by hospitalization for more than 1 day, any operation undergone, exercise restriction, and the regular use of medicine.

Childhood infectious diseases.—The most prevalent of the childhood infectious diseases was measles. Among children the proportion reported to have had measles (type not differentiated on history) increased from 73 percent among 6-year-olds to over 90 percent by 10 and 11 years of age (table 4 and figure 7). While the disease was reported to have occurred at any age from under 1 year to 11 years, about half the examinees were reported to have had measles between 4 and 6 years of age. Information obtained on the seriousness of the illness indicated that nearly 5

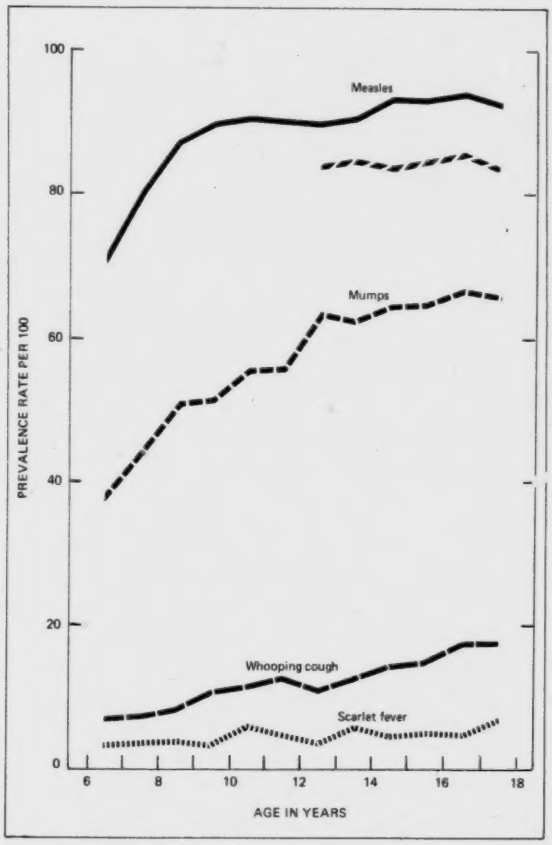

Figure 7. Prevalence rates for history of selected childhood infectious diseases among U.S. children in 1963-65 and youths in 1966-70, by age.

percent were reported to have been sick longer than usual, 4 percent had a fever longer than 1 week, over 2 percent were unusually drowsy afterward, and 1 percent required hospital care.

In the later survey among adolescents, the proportion reported to have had measles increased slightly, from 90 percent at age 12 to 94 percent at 16 years of age. The prevalence among boys and girls was generally similar throughout the age range 6-17 years.

Chickenpox history was nearly as frequently reported as measles among the youths (no data were obtained on this disease among children). About 84 percent of youths were reported to have had chickenpox. No trend by age was evident, indicating that few, if any, contracted this disease after the age of 11 years. Boys were about as likely as girls to have had the disease.

The proportion having had mumps increased consistently throughout childhood from 38 percent among the 6-year-olds to over 55 percent by 10 and 11 years. The increasing trend with age was less consistent among youths, ranging from a low of 62 percent by 13 years to 67 percent at age 16 years. Except at ages 6 and 14 years, boys were more likely to have had this disease than girls. The sex differences in the rates were larger and more consistently significant among the youths than among the children.

Children with a history of mumps most frequently had it at 5 or 6 years of age, with two-thirds having the disease between 4 and 7 years. Serious complications were reported less frequently for mumps than for measles. Nearly 2 percent were reported to have had mumps longer than usual and/or had a fever for more than 1 week, about 1 percent were unusually drowsy afterward, and less than 1 percent (0.4 percent) were hospitalized during this illness.

Whooping cough history was reported among 9 percent of the children and 14 percent of the youths. Except for the slight inconsistency or dip at ages 12 and 13 years which is negligible, the proportion reported to have had this disease increased steadily from 7 percent among 6-year-olds to 18 percent among 17-year-olds. Boys were as likely as girls to have had this condition.

Scarlet fever history was reported among nearly 4 percent of the children, the rate ranging from a low of 3 percent at age 6 to 5 percent at age 10. In the youth study, the proportion with such a history was 5 percent and ranged from nearly 4 percent among the 12-year-olds to over 6 percent at 17 years. No consistent, significant, age-related trend was evident here, and boys were as likely as girls to have had the disease.

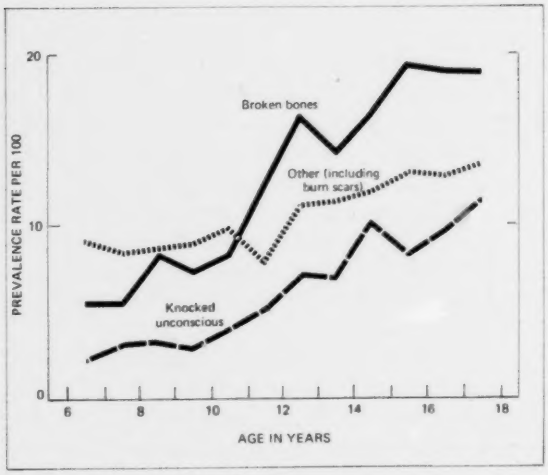

Figure 8. Prevalence rates for history of major types of serious accidental injuries among U.S. children in 1963-65 and youths in 1966-70, by age.

Accidents.—In the children's survey three types of serious accidents were differentiated on the history—those in which bones were broken, those in which the child was knocked unconscious, and those in which the child was scarred from burns. In the youth survey only the first two of these types of accidents were identified separately.

The proportion of examinees who had ever broken any bones increased fairly consistently with age from 6 percent among the 6- and 7-year-olds to about 19 percent by the age of 15-17 years. Relatively fewer children had ever been knocked unconscious, but the proportion with such an injury increased even more significantly from 2 percent at age 6 to 12 percent by 17 years of age. Some gradual increase with age may be seen also in the proportion of youths, but not children, having a history of other types of serious accidents or injuries (table 4 and figure 8).

Boys were more likely than girls to have had broken bones or been knocked unconscious, the differential being greater among youths than children. The difference in rates was statistically

significant at the 5-percent probability level among children 6-11 years and at the 1-percent level among youths 12-17 years. From the age of 12 years on, relatively more boys than girls were reported to have had other types of serious accidents or injuries; this was not consistently so among younger children.

In the survey among youths but not children, two further indications of the severity of the accidents were obtained in the medical history—the number of serious accidents the youth had had and if knocked unconscious, how long he or she remained in this condition. Of the 9 percent whom the parents indicated had experienced some serious accident, 82 percent had only one, 15 percent had two serious accidents, and 4 percent had three or more. The majority of those knocked unconscious remained in this condition for 1 hour or less. Among the 9 percent to whom this had happened, 84 percent recovered consciousness within 1 hour, 12 percent were reported to have been unconscious for more than 1 hour but less than 24 hours, while 4 percent remained unconscious for 1 day or more.

Allergies and related conditions.—The proportion reported as ever having had hay fever increased substantially with age from less than 4 percent among children 6-8 years old to over 10 percent among 16- and 17-year-old youths, the difference between the extremes being statistically significant (figure 9). Boys were more likely than girls to have or have had hay fever, the difference being statistically significant among children 6-11 years but not among youths 12-17 years. The rate for boys consistently exceeded that for girls at each year of age from 6-13 and 15-17 years, though the individual differences at each year of age were not consistently large enough to be significant at the 5-percent level.

Asthmatic conditions were reported nearly as frequently among children as youths (5 percent compared with 6 percent) and showed no trend with age. The proportion of children with a history of asthma ranged from 4 percent at age 6 to 7 percent at age 7, while among youths the range was between 5 percent at age 12 and 7 percent at 16 years. Boys were more likely than girls to have such a condition, the pattern being consistent across the 12-year age span. The differences in rates for boys and girls are statistically significant for children 6-11 years and youths 12-17 years but not at each individual year of age.

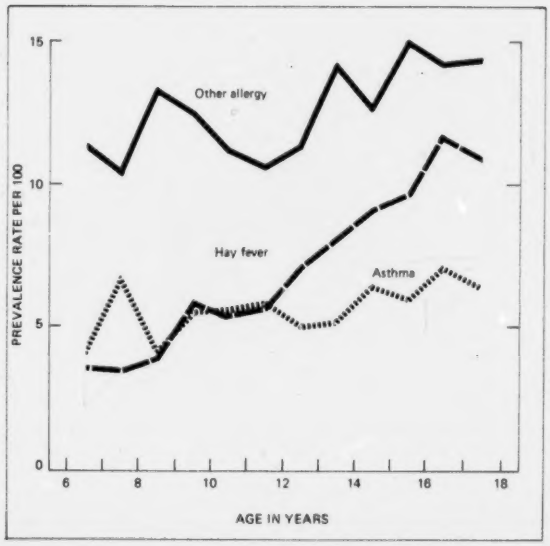

Figure 9. Prevalence rates for history of hay fever, asthma, or other allergies among U.S. children in 1963-65 and youths in 1966-70, by age.

All other allergic conditions were reported significantly more frequently among youths than children (14 percent compared with 11 percent). However, the pattern is not consistent across the 12-year age span. Boys under the age of 12 were more likely than girls to have had such conditions but from 12-17 years the reverse was consistently found.

Chronic conditions.—A history of kidney trouble was reported among nearly 4 percent of children 6-11 years of age and 5 percent of youths 12-17 years of age. The difference in rates between the two age groups is negligible, and no consistent trend with age is evident. With few exceptions girls were about twice as likely as boys to have a history of this condition across the entire age span of 6 through 17 years (table 4 and figure 10).

Heart murmurs or other heart conditions were reported more frequently among youths than children—4.9 percent for youths compared with 3.7 percent for children 6-11 years old—a difference that is statistically significant at the 5-percent level. Boys were more likely than girls to have a heart condition (figure 10),

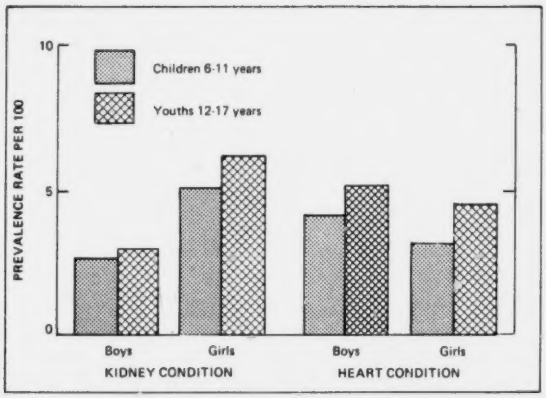

Figure 10. Prevalence rates for history of kidney or heart condition among U.S. children in 1963-65 and youths in 1966-70, by sex.

the difference being statistically significant, however, only for children 6-11 years.

Respiratory conditions.—Information on a history of frequent or serious upper respiratory and related infections, but not pneumonia, was obtained only for the children. Among them, 12 percent were reported to have often had bad sore throats, 21 percent have had more than three colds in the previous year, 11 percent to have often had coughs that hang on, 16 percent to have had bronchitis, and 6 percent to have often had coughs or colds that go to their chest (table 4 and figure 11). Boys were more likely than girls to have had bronchitis (17 percent compared with 14 percent), while girls were more likely than boys to have often had bad sore throats (13 percent compared with 10 percent), the differences in rates being statistically significant at the 5-percent probability level. The prevalence of an excessive number of colds (more than three in the previous year), coughs that hang on, and bronchitis decreased consistently with age (table 4). No age-related trend is apparent with respect to frequent bad sore throat.

Only among youths were data obtained on a history of pneumonia. Eleven percent were reported to have had this condition. No age trend was evident and boys were nearly as likely as girls to have had pneumonia.

Sensory-neurological conditions.—Three percent of children and youths were reported by their parents to have had *convulsions or fits.* No consistent trend by age was evident among either group, the prevalence rates varying between 2 and 4 percent across the entire age span. Girls were nearly as likely as boys to have had such a condition, the difference in the prevalence rates being negligible (table 4 and figure 12). (In the medical history for youths this was worded as "convulsion, fit, or seizure" rather than just "convulsion" and "fit" as in the children's survey, but since no specific definitions were provided and the prevalence rates from the two cycles were nearly identical, it is assumed that the questions were essentially comparable in both.)

A history of *eye trouble,* including crossed eyes or strabismus, was reported among 14 percent of American children in 1963-65 study. The percentage increased consistently with age from 6 percent among the 6-year-olds to 21 percent at age 11. Girls were significantly more frequently reported as having such a condition than boys (15 percent compared with 13 percent) but the consistent trend with age is evident and similar among both groups.

Among youths 12-17 years in the 1966-70 study, only 7 percent were reported to have ever had eye trouble. The proportion was nearly iden-

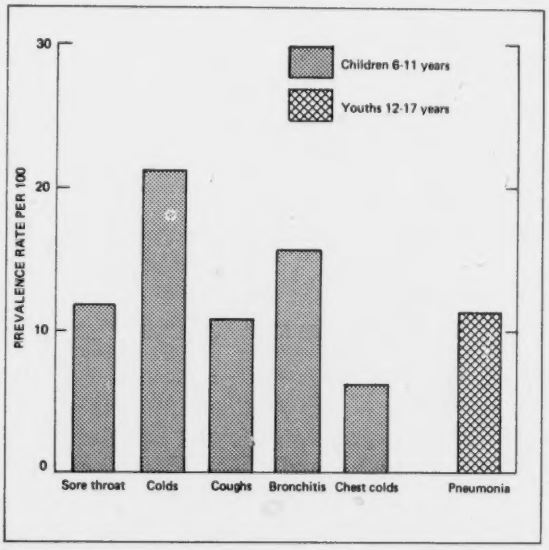

Figure 11. Prevalence rates of history of selected respiratory conditions among U.S. children in 1963-65 and youths in 1966-70.

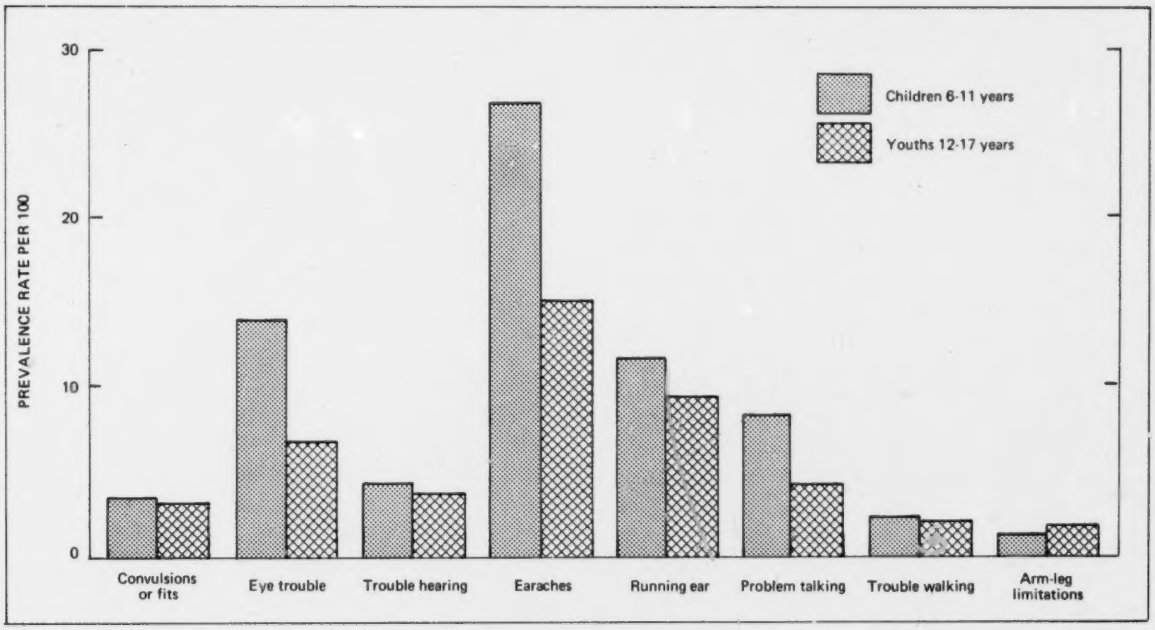

Figure 12. Prevalence rates of history of sensory-neurological conditions among U.S. children in 1963-65 and youths in 1966-70.

tical among boys and girls and no consistent trend by age was evident. The apparent decrease in the history of eye trouble between children and youths is due primarily to the wording of the questions in the two medical histories. In the study among youths, but not that of children, the parent was asked to exclude from her answer eye trouble that is corrected by glasses or contact lenses. (See appendix II—Child's Medical History, question 41, and Medical History of Youth, question 23.) This inclusion in the children's history probably accounts for much of the increase in eye trouble with age in the group 6-11 years and the significantly higher proportion found among girls than boys, since it has been shown previously that proportionately more girls than boys have defective visual acuity of 20/40 or less and that the rate increases with age from 6 through 11 years.[13]

Trouble hearing was reported among approximately 4 percent of both children and youths. Boys 6-11 years of age were slightly but not significantly more likely to have such a problem than girls of that age, while among youths the prevalence rates were identical. No trend by age was evident in either group.

More than one child in five (27 percent) was reported to have ever had *earaches*. The prevalence was higher among girls than boys (29 compared with 25 percent) and may be seen to decrease with age among boys but not girls. In the youth study, the question regarding earaches was limited to earaches in the past year. On this basis one youth in seven (15 percent) was reported to have had an earache in the past year. Aside from the significantly higher proportion of 12-year-olds with this problem, no consistent age trend among youths was found. However, the prevalence among girls was significantly higher than among boys (19 percent compared with 12 percent), the differential being even greater than that found on the basis of the broader question among children.

Twelve percent of the children compared with 9 percent of the youths were reported to have ever had a *running ear* or discharge from the ear. Among children the prevalence showed no consistent trend with age but dropped to 9 percent at 11 years. From 12-17 years the rate varied between 8 and 10 percent. Boys of either age group were about as likely to have had such a condition as girls.

Problems with the way they talk were reported for one of each 12 children (8 percent). The rate decreased with age from 13 percent at 6 years to 6 percent at 11 years. The problems included stuttering, stammering, lisping, being otherwise hard to understand, or other speech problems. Boys of this age were significantly more likely than girls to have such a problem (10 percent for boys, 7 percent for girls) and the age-related trend is evident among both groups.

Among youths in the later study, 4 percent were found to still have such problems. Here the proportion was highest among the 12- and 13-year-olds and levelled off at 4 percent or less from 14-17 years. Boys 12-17 years of age continued to have such problems more frequently than girls (5 percent compared with 3 percent).

Trouble with walking or a limp was reported among approximately 2 percent of both children and youths. Boys were about as likely as girls to have such a condition and no trend with age was evident among both groups.

Arm or leg limitation in use was reported among about 1 percent of the children and 2 percent of the youths. No consistent trend by age was evident and boys were about as likely to be affected as girls.

Other disease conditions.—In the study of children, but not of youths, data were obtained regarding a history of other more serious diseases or conditions for which the incidence was known to be low, but some estimation of magnitude was attempted. These include rheumatic fever, poliomyelitis, diphtheria, meningitis, tuberculosis, diabetes, epilepsy, chorea, and cerebral palsy. Less than 1 percent of the children were reported to have had any one of these conditions (table 5).

Operations.—The proportion of children and youths who had had at least one operation generally increased steadily with age from 24 percent among the 6-year-olds to 43 among the 16- and 17-year-olds (table 4 and figure 13). From 6 through 15 years of age boys were substantially more likely than girls to have undergone some surgical procedure, the differences in rates being significant at the 5-percent probability level. In the later teens (16 and 17 years of age), this differential disappears.

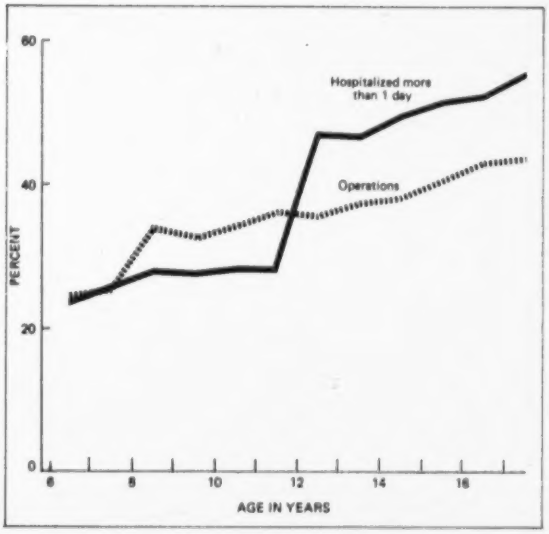

Figure 13. Percent of U.S. children in 1963-65 and youths in 1966-70 with a history of operations or hospitalizations, by age.

The majority of these operations were tonsillectomies and adenoidectomies. Two-thirds of the children and three-fourths of the youths with a history of surgery had had one or both of these operations. In order of frequency the other major operations included surgery for ruptured hernia, appendectomy, and circumcision. One percent of the children and 5 percent of the youths had had more than one type of these operations.

Hospitalizations.—More than one child of four (27 percent) of those 6-11 years of age in 1963-65 had been hospitalized for surgery other than tonsillectomy or for some other sickness or trouble. This was found slightly less frequently for the 6- and 7-year-olds than those 8 years and older. Boys of 6-11 years were significantly more likely than girls to have been hospitalized (30 percent compared with 24 percent). This differential was evident across the age range but was not consistently significant throughout. While the data are not comparable, it is of interest to note here that a similar sex differential was found with respect to hospital dischargees under 15 years of age in July 1957-June 1958 and in 1968 in the Health Interview Survey.

From the study of youths in 1966-70, 50 percent were reported to have been hospitalized overnight or longer. There was a slight increase with age in the proportion, from 47 percent among the 12- and 13-year-olds to 55 percent at age 17 years. Boys were significantly more likely to have been hospitalized than girls throughout the age range 12-17. Over three-fourths of these youths (78 percent) were in the hospital for 1 week or less, while 1 percent had been confined for over 6 months.

The sharp contrast between the findings for children and youths in the percent ever hospitalized is probably due to differences in the wording of the questions used in the two studies. The data for children were based on the answers to two questions (questions 30 and 31, appendix II)—whether the child had had any kind of operation other than removal of tonsils and whether or not he had ever been in the hospital for any other sickness or trouble. The 20 percent for whom the latter question was answered in the affirmative were added to the approximately 5 percent who had no such history but had had some other operation. In the youth study the question was asked regarding whether or not he or she had ever been in a hospital overnight or longer with no implied exclusion of surgery as was done in the children's study. Data were not obtained in either study on the extent to which tonsillectomies and other surgery was performed in a hospital. Consequently, the data from the two studies here are probably not completely comparable.

Exercise restrictions.—In response to questions of whether the child had ever been kept from hard exercise or play and whether the youth had ever been restricted in activity for health reasons, the proportion of children reported to have such a history increased slowly but consistently from 4 percent at ages 6 and 7 years to nearly 14 percent at age 17 years. The proportion still restricted at the time of survey varied between 1 and 2 percent for children and increased from 3 percent at 12 years to 7 percent at age 17 (figure 14). Boys were about as likely as girls to have been so restricted.

For about three-fourths of the children the restriction in activity at any time had been on the recommendation of a doctor. Among youths the proportion was similar (75 percent) but was in answer to the question concerning a doctor's advice regarding *present* limitation of strenuous activity.

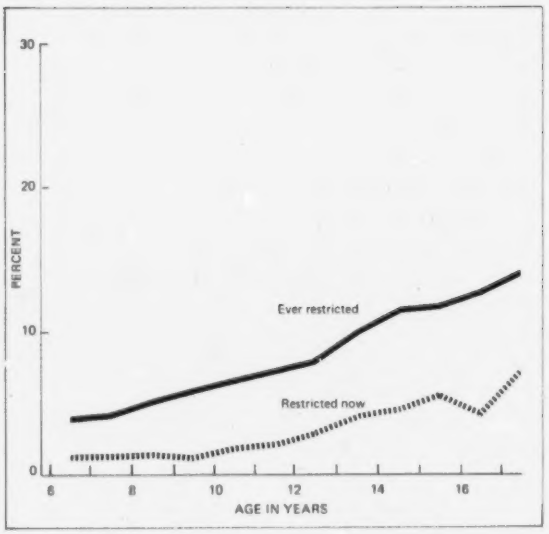

Figure 14. Percent of U.S. children in 1963-65 and youths in 1966-70 with a history of exercise restriction, by age.

Use of medicine.—At the time of the respective studies, 4 percent of children 6-11 years of age in 1963-65 and over 6 percent of youths 12-17 years of age in 1966-70 were taking medicine regularly (table 4). The difference in the rates is significant at the 5-percent level. Boys were reported to be taking medication regularly about as frequently as girls and the proportion generally increased with age. Among children taking medicine, 91 percent were doing so under a doctor's orders, while among youths the proportion was just slightly higher, 96 percent.

Serious illnesses.—In the study of United States youths, information was obtained on the most serious illness experienced. Nearly 72 percent were reported by their parents to have had a serious illness. The proportion was significantly higher for boys than girls (74 percent compared with 70 percent) but showed no consistent trend by age across the span 12-17 years. Findings with regard to the severity of the illness were similar for boys and girls. The doctor had indicated this was a moderate case for nearly half (48 percent), while he rated slightly more than one-fourth (27 percent) as severe. The illness had

left some lasting effect on 11 percent of the youths who were reported to have had a serious illness, i.e., 8 percent of all youths. The median age of the youths at the time of the onset of this serious illness ranged between 5 and 7 years, though it was nearly as likely to have occurred at any age from infancy on (table 6).

Infectious childhood diseases—measles, chickenpox, mumps, scarlet fever, or whooping cough—were most frequently reported as serious (table 7). For nearly two-fifths (39 percent) the illness was of this type and was most likely to have been measles (24 percent of those with a history of serious illness).

Respiratory conditions—pneumonia, colds, influenza, and streptococcal sore throat—were the next most frequently cited type of serious illness (22 percent). Asthma accounted for about 4 percent, while ear conditions, accidental injuries, appendicitis attacks, hypertrophied tonsils, rheumatic fever, and specific genitourinary conditions were each reported as serious among less than 2 percent of the youths with this illness history.

Examination-History

The question of the degree of agreement between health information obtained by questioning the individual and that from medical examination of the same person is of interest from many points of view. There have been carefully designed studies of this problem of agreement between interview and medical record data on the same persons such as those carried out for the Health Interview Statistics Division of NCHS.[15,16] The relationships presented in the following paragraphs, in table 6, and in the related figures need to be recognized as a more gross overall kind of comparison.

A principal reason for the inclusion of a medical history in the Health Examination Survey is to aid the physician in his examination. Thus, the two sources are far from independent; in fact, in some instances as for example, with asthma or heart disease, the statements made on the history may contribute heavily to the findings recorded by the examining physician. Perhaps even more important is the fact that the medical history information utilized here is limited to that provided

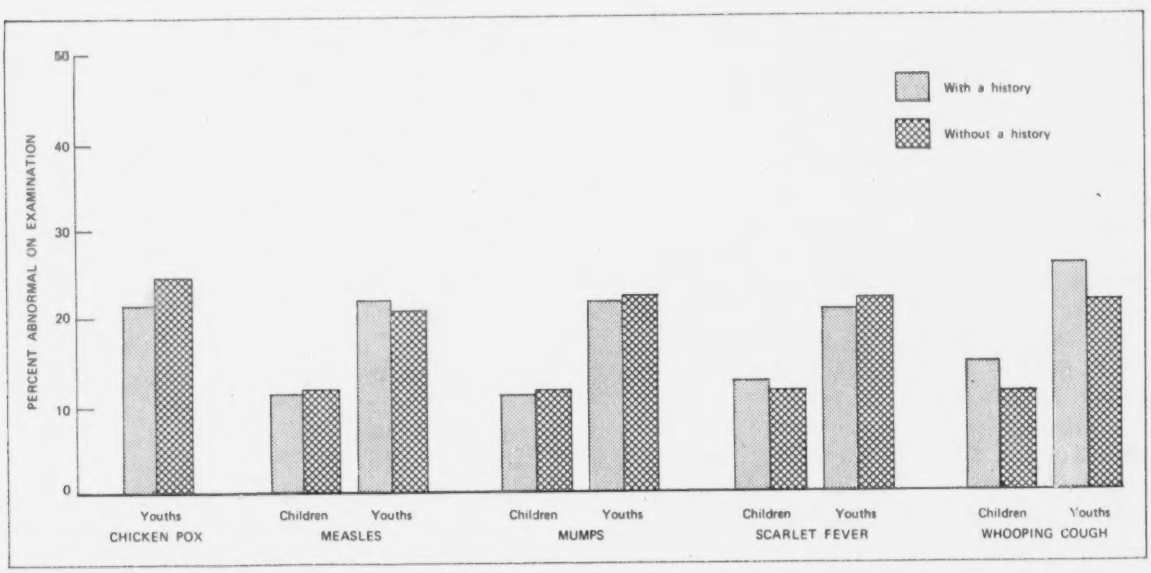

Figure 15. Percent of U.S. children (6-11 years) in 1963-65 and youths (12-17 years) in 1966-70 with significantly abnormal findings on survey examination among those with or without a history of selected infectious childhood diseases.

by the respondent (parent of the child or youth) and many of the responses can be expected to be greatly affected by the period of recall which extends over many years. In addition, the information obtained on the medical history and the diagnostic impression are not sufficiently specific or comparable to make an assumption about what the relationships should be. For all of the above reasons only a gross comparison has been made, with the one axis being the answers (yes or no) to a particular medical history question and the other axis being the overall judgment of the physician as to whether the child or youth was "abnormal" regardless of whether the abnormality might be assumed to be related to the specific question. Thus, while it is reasonable to assume that the higher proportion of children with medical findings of "abnormal" among those with a "yes" answer to the question concerning heart trouble reflects in part an abnormal heart finding, it must be kept in mind that the percentage shown will include children found to be abnormal for other reasons as well.

Infectious diseases.—No statistically significant differences for either children or youths were found in the proportion abnormal between

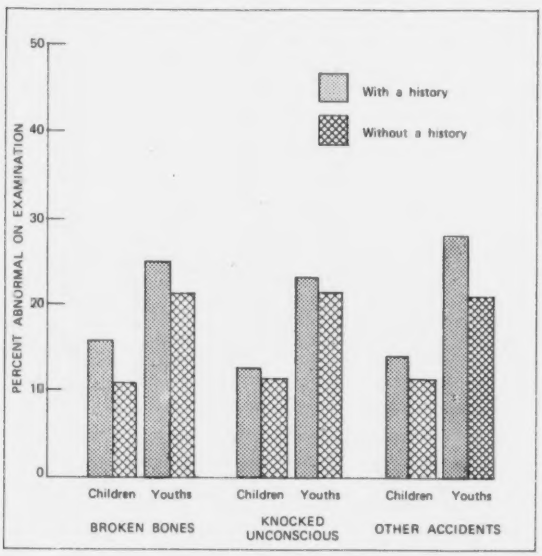

Figure 16. Percent of U.S. children (6-11 years) in 1963-65 and youths (12-17 years) in 1966-70 with significantly abnormal findings on survey examination among those with or without a history of serious accidental injuries.

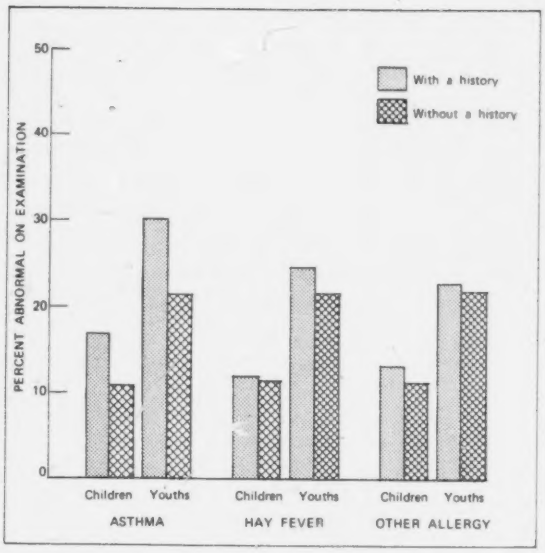

Figure 17. Percent of U.S. children (6-11 years) in 1963-65 and youths (12-17 years) in 1966-70 with significantly abnormal findings on survey examination among those with or without a history of allergies.

those who had had and those who had not had measles, mumps, scarlet fever, or whooping cough. Youths with a history of chickenpox were slightly but not significantly less likely than those who had not had the disease to have significant abnormal findings on examination. While the proportion abnormal among both children and youths with a history of whooping cough was greater than among those without such a history, the differences were not large enough to be statistically significant at the 5-percent probability level (table 8 and figure 15).

Accidents.—Children who had a previous history of broken bones were substantially more frequently found abnormal on examination than those who had not; the difference in abnormal rates was statistically significant at the 5-percent probability level or exceeded the 95-percent confidence limit for such an estimate. Among youths the corresponding abnormal rates did not differ significantly. A rate of abnormality higher for those with such a history than without was found among children except at age 10 years and among the youngest and oldest youths—12, 16, and 17 years. Only at ages 8 and 12 years were the differences statistically significant. Children and

youths who had had other types of accidents were only slightly more likely than those who had not to be considered abnormal on examination (table 8 and figure 16).

Allergies.—Persons with a history of *asthma* were more frequently rated as abnormal on examination than those without such a history (17 percent compared with 11 percent for children and 30 percent compared with 21 percent for youths), but only among children was the difference significant at the 5-percent level. This pattern of a rate of abnormality higher among those with a history of asthma than without was found across the age range in both studies but was statistically significant only at 6, 9, 10, 12, and 14 years (table 8 and figure 17).

Children and youths with a history of *hay fever or other allergies* were only slightly more frequently found abnormal on examination than those without such a history and the differential in the two sets of abnormal rates was not maintained across the age range in both studies.

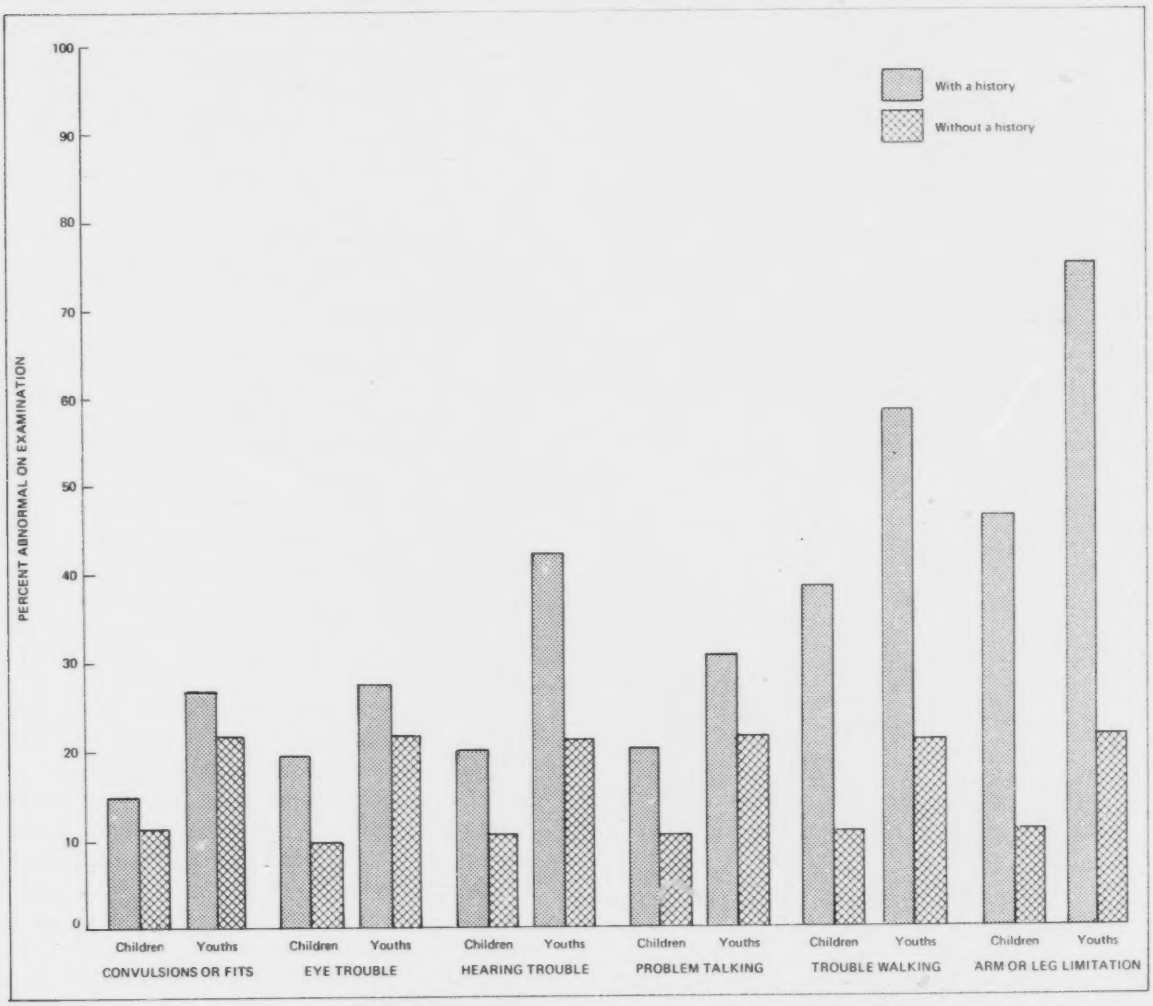

Figure 18. Percent of U.S. children (6-11 years) in 1963-65 and youths (12-17 years) in 1966-70 with significantly abnormal findings on survey examination among those with and without a history of sensory-neurological conditions.

Chronic conditions.—Youths with a history of *kidney trouble* were substantially more likely than those without to have been considered abnormal on examination (36 percent compared with 21 percent, the difference being statistically significant at the 5-percent level). Among children the proportion of those abnormal with such a history was only slightly greater than among the others. By age the abnormal rates for the two groups (with and without kidney trouble) differed significantly at 10 years and 12-16 years.

Children with a *heart condition* history were substantially more frequently rated as abnormal on examination than those without (26 percent compared with 11 percent) while among youths the difference in abnormal rates was negligible (26 percent compared with 22 percent). Across the age range in both studies statistically significant differences in these two sets of abnormal rates were found at 7-11 and 13 years.

Respiratory conditions.—The proportion abnormal on examination was only slightly but not significantly higher among those children with than those without a history of frequent or severe sore throats, colds, or coughs and among youths with than without a history of pneumonia.

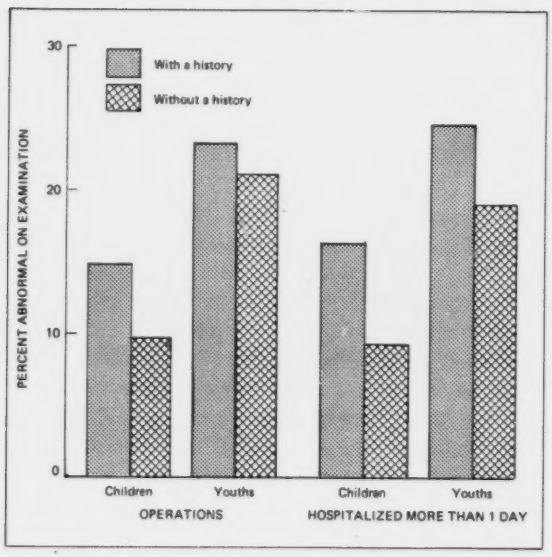

Figure 19. Percent of U.S. children (6-11 years) in 1963-65 and youths (12-17 years) in 1966-70 with significantly abnormal findings on survey examination among those with and without previous operations or hospitalization history.

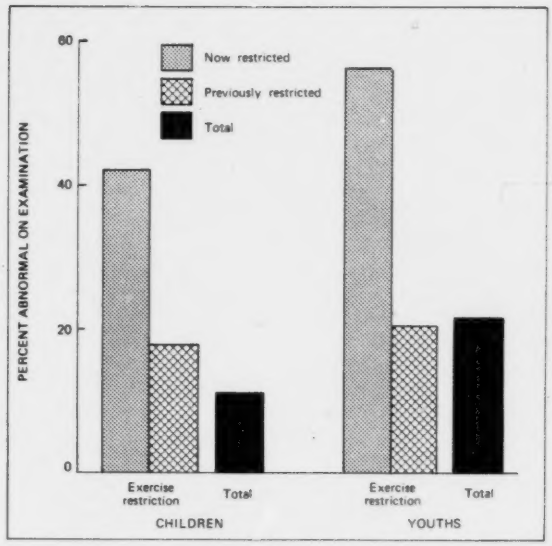

Figure 20. Percent of U.S. children (6-11 years) in 1963-65 and youths (12-17 years) in 1966-70 with significantly abnormal findings on survey examination among total and those with a history of exercise restriction.

Sensory-neurological conditions.—Children and youths with a history of eye trouble, trouble hearing, problem with talking or speech, trouble walking, or with arm or leg limitation were found to have been abnormal on examination substantially more frequently than those without such a history, the differences in rates all being statistically significant at the 5-percent level (table 8 and figure 18). The proportion abnormal on examination was only slightly higher for those with a history of convulsions or fits, earaches, and running ears than for those without this history.

Operations, hospitalizations, exercise restrictions.—Children who had had an *operation* were significantly more likely than those who had not had one to have been rated as abnormal on examination (15 percent compared with 10 percent), while among youths only a negligible 2 percent difference was found between the two abnormal rates (table 8 and figure 19).

The children who had been *hospitalized* more than 1 day were also significantly more likely to have abnormal findings on the examination than those without such history (16 percent compared

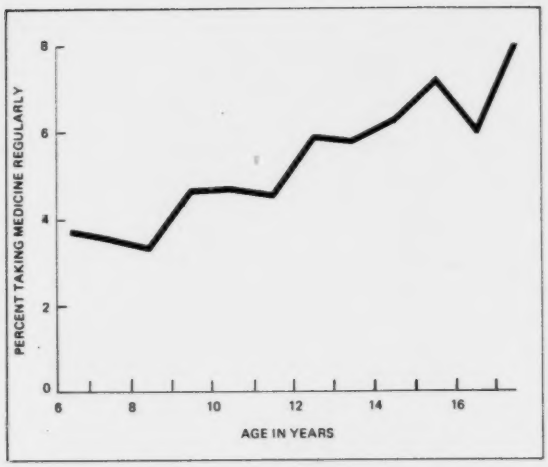

Figure 21. Percent of U.S. children in 1963-65 and youths in 1966-70 taking medicine regularly, by age.

with 9 percent) while among youths the nearly 6 percent difference in rates was within the 95-percent confidence limit for such an estimate.

Children and youths whose *exercise* was *restricted* at the time of examination were substantially more likely to be found abnormal on examination than those whose exercise had previously been restricted but was not so at examination time (42 percent compared with 18 percent for children, 56 percent compared with 20 percent for youths). For children but not for youths the abnormal rate was also significantly higher for those whose exercise had not been restricted previously than for those who had never had such a limitation (figure 20).

Use of medicine.—Youths reported to be taking medicine regularly (6.5 percent) were, as would be expected, significantly more frequently found abnormal on examination than those who were not (38 percent compared with 21 percent of those not on medication) (tables 4 and 8 and figures 21 and 22). The relationship of the regular use of medicine and the parent's concern for the health of the youth 12-17 years old was less strong than with the examination findings. Parents were only slightly more likely to be worried about the youth's health or to have rated it fair or poor if the youth was taking medication regularly than if not.

Health Status—Race, Region, and Income Differentials

Race.—White children and youths were more likely than their Negro counterparts to be considered by their parents to be in at least very good health and less likely to be in good or fair health (table 9 and figure 23). The differences in the corresponding rates were significant at the 5-percent probability level. The proportion rated as in poor health (0.4 percent) was identical among both racial groups. Health status ratings were similarly distributed among white boys and girls, and the distributions did not differ significantly among Negro boys and girls; nor was any consistent pattern by age discernible in either racial group.

Parents of Negro children and youths were relatively more frequently worried about the health of their children than were parents of white children, though the difference in rates between white and Negro children was statistically significant only among the youths (table 10).

The proportion rated abnormal (significant) on examination was lower among white than Negro children and youths across the age range in both studies, 6-17 years, although only for the group 6-11 years was the difference statistically significant at the 5-percent probability level (table 11). This pattern was similar among both boys and girls. These racial differences are consistent with findings from the Commission on Chronic Illness studies in Baltimore,[11] although the rates in the latter are both somewhat higher.

Region.—Children and youths in the South were relatively less frequently rated by their parents as in at least very good health and more frequently as in good, fair, or poor health than were those living in the remainder of the country (table 12 and figure 24). The differences in these rates were significant at the 5-percent probability level. Health status ratings of children and youths were similarly distributed in the other three regions of the country—the Northeast, Midwest, and West. Parents in the South were more likely than those living elsewhere in the country to be worried about some aspect of the health of these children or youths, although the rates in the South were significantly higher only among the youths 12-17 years (table 10).

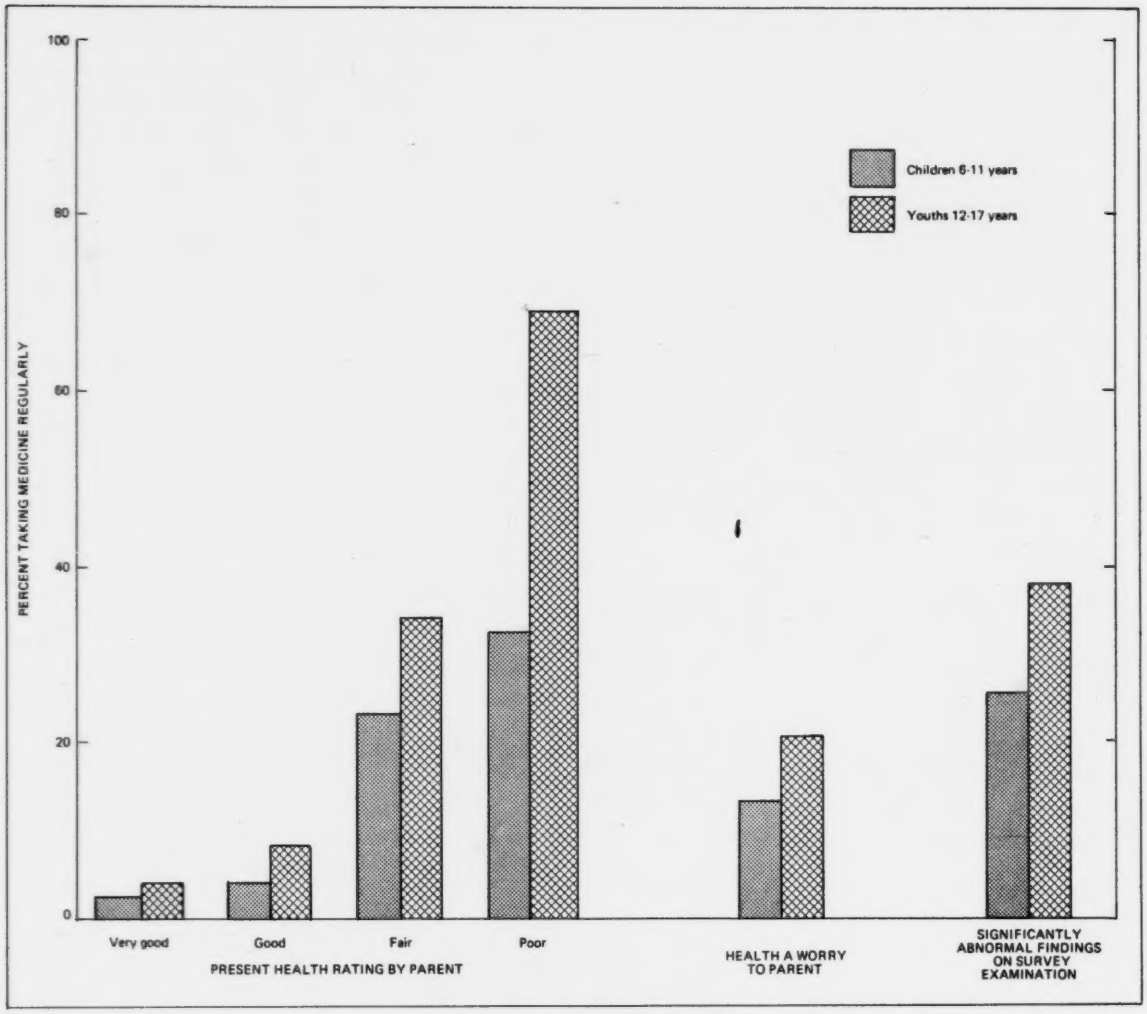

Figure 22. Percent of U.S. children in 1963-65 and youths in 1966-70 taking medicine regularly, by parent ratings of health and presence of significantly abnormal findings on survey examination.

On both parent ratings, the higher prevalence of poor health among Southern children and youths than among those in other parts of the country is consistent with the racial findings and reflects the disproportionate number of Negro young people in that region.

The proportions of children and youths rated as abnormal (significantly) on examination show dissimilar patterns of regional differences. Children 6-11 years of age from the West were substantially less frequently found to be abnormal than those from other parts of the country (6.8 per 100 compared with 12.1 to 13.7 in the other regions). Among youths 12-17 years of age the proportion found abnormal was significantly higher among those in the South than elsewhere (29.8 per 100 compared with 17.8 to 20.4 in the other three regions). The regional pattern with respect to abnormality (relatively less among children in the West and more among youths in

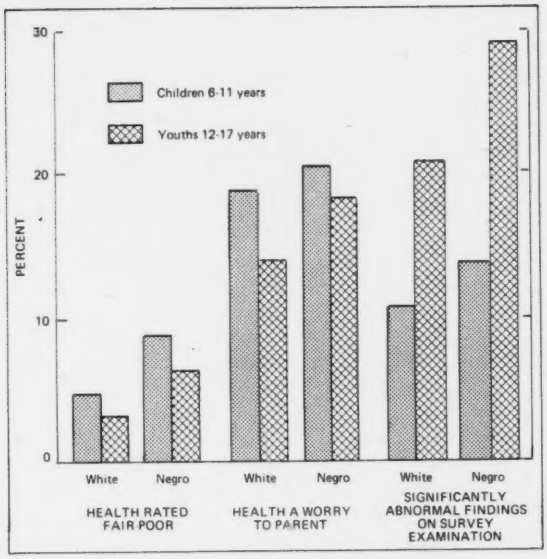

Figure 23. Percent of white and Negro U.S. children in 1963-65 and youths in 1966-70 with significantly abnormal findings on survey examination and parent ratings of fair or poor health or health a worry.

the South) was consistent among both boys and girls in the two age groups (table 11). Among both children and youths in each of the regions, boys were more frequently rated as abnormal than girls although the sex differentials were too small to be of significance.

Income.—A significant relationship was evident between the annual family income and the parent ratings of the health of children and youths (table 13 and figure 25). The proportion of both age groups whose health was rated as at least very good increased significantly with increasing income level of the family. Among children the rate nearly doubled, from 40 percent for those in families with less than $5,000 income to 70 percent among those with income of $10,000 or more. The rate reported for excellent or very good health among youths increased from 50 percent in the lowest income bracket to 80 percent in the income level $10,000 or more. Consistent significant decreases were found with increasing income in the proportion of examinees whose health was rated as good, fair, or poor.

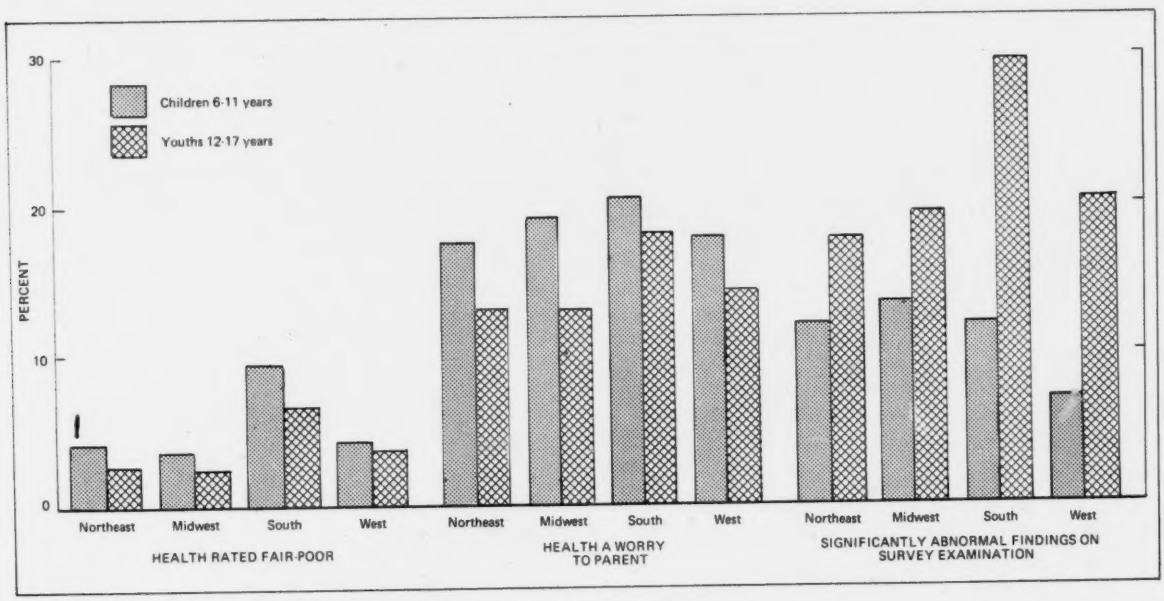

Figure 24. Percent of U.S. children in 1963-65 and youths in 1966-70 with significantly abnormal findings on survey examination and parent ratings of fair or poor health or health a worry, by region.

On the parent rating with respect to concern over the health of children (or youths), the pattern of relationship with income was similar but the decrease in the rate with income was significant only among youths (table 10). Examination findings of a significantly abnormal physical condition among children and youths also showed a consistent relationship to the income level of the family. The proportion of children or youths found to be abnormal decreased steadily with successively higher income levels, but only the difference in rates between the highest and lowest income brackets was statistically significant at the 5-percent probability level (table 11).

Medical History—Race, Region, and Income Differentials

Race.—Significant differences were found between white and Negro children in their histories of some of the infectious childhood diseases. White children were significantly more likely than Negro children to have had mumps; white youths were significantly more likely than Negro youths to have had chickenpox; while both white children and youths were significantly more likely than their Negro counterparts to have had scarlet fever (table 14). In sharp contrast, Negro children and youths were more than twice as likely as white children and youths to have had whooping cough. The difference in rates was significant at the 5-percent probability level.

Broken bones were twice as frequently reported among white as Negro children and youths, a difference which is statistically significant at the 5-percent level.

Other allergies excluding asthma and hay fever were reported significantly more frequently (relatively) among white than Negro children and youths. The proportion of those having frequent colds was significantly less among white than Negro children, while the reverse was found with respect to bronchitis history.

Among the sensory-neurological conditions, the proportion with a history of eye trouble was significantly greater among Negro than white youths, while white children had had earaches and running ears substantially more often (proportionately) than Negro children. The latter condition was also more likely to be reported in the history of white than Negro youths. Relatively

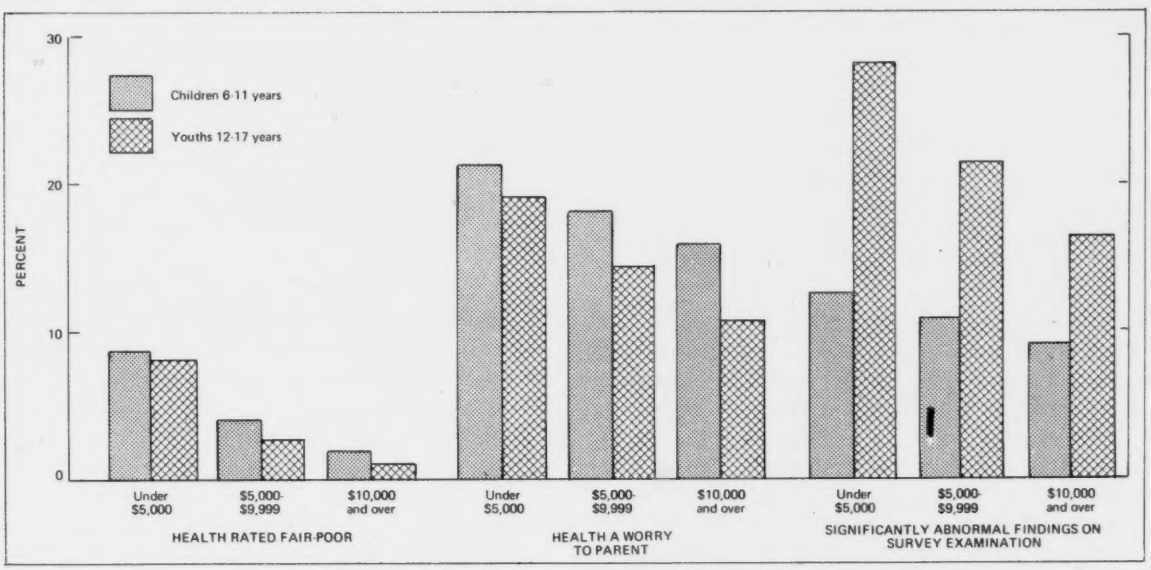

Figure 25. Percent of U.S. children in 1963-65 and youths in 1966-70 with significantly abnormal findings on survey examination and parent ratings of fair or poor health or health a worry, by annual family income.

fewer white than Negro children and youths were considered by their parents to have problems talking or with speech.

With respect to the two questions relating to medical care, white children and youths were substantially more likely to have had an operation than their Negro counterparts.

Only among youths was there a significant racial difference in the proportion who had been hospitalized overnight or longer. White youths were substantially more likely than Negro youths to have been hospitalized.

Region.—Regional differences among children and youths with respect to their medical histories of illness and medical care are less consistent than those found between the white and Negro groups.

Whooping cough was relatively more frequently reported among children and youths in the South, reflecting the greater proportion of Negro persons in that part of the country.

Asthma history rates were significantly higher among Southern children, though the white-Negro difference in these rates was negligible. Hay fever was significantly more frequently reported among children and youths in the West.

Streptococcal sore throat and frequent cold histories were more prevalent among Southern children, although only for the latter condition was a corresponding racial difference in rates found.

The proportion of children and youths in the South who had had an operation was significantly lower than in the other regions, while the proportion of youths who had been hospitalized was also substantially lower, due at least in part to the disproportionately larger Negro population in that region.

Income.—Significant relationships of income level of the family to the medical history of these children and youths may be seen with respect to chickenpox for youth, mumps for children, whooping cough for both age groups, allergies other than asthma and hay fever for both age groups, colds and bronchitis among children, and operations and hospitalization among youths. Only for whooping cough and colds is the relationship negative, that is the prevalence for these two decreases consistently with an increase in the income level of the family. In each of the other items in the history of illness or medical care where significant relationship with family income was found, the respective rates increase directly with the income levels.

SUMMARY

This report contains national estimates on physical health status and health problems or abnormal conditions of noninstitutionalized American children 6-11 years of age in 1963-65 and youths 12-17 years of age in 1966-70 as determined in a standardized examination given by specially trained pediatricians in the Health Examination Survey. In addition, national estimates based on parent ratings of present health and health history together with their interrelationship with the examination findings for these children and youths are included.

In the first of these surveys, a probability sample of 7,417 children was selected to represent the roughly 24 million noninstitutionalized children 6-11 years of age in the United States at that time. Of these 7,119, or 96 percent, were examined. For the second survey, a probability sample of 7,514 youths was selected to represent the nearly 23 million noninstitutionalized youths 12-17 years of age in this country at midsurvey point. Of them, 6,768 or 90 percent were examined. Both examined groups were closely representative with respect to age, sex, race, region, size of place of residence, and rate of population change in size of place of residence from 1950 to 1960 of the population from which the respective samples were drawn.

These examination and medical history findings show that:

1. Parents indicated somewhat less concern about the health of the youths than the children in their families possibly because more had received care. Over half of the American children 6-11 years of age in 1963-65 were considered to be in very good health compared with two-thirds of the youths 12-17 years of age in 1966-70, who were rated as in very good or excellent health. Five percent or 1.3 million children and 4 percent or 0.8 million youths were rated by their parents as in fair or poor health, while parents were worried about some aspects of health for substantially more of the children than youths

(19 percent compared with 15 percent, a difference which exceeds the 95-percent confidence limit for the estimates).

2. In contrast, on direct examination, survey pediatricians found only one child in eight, or 3.1 million children, to have one or more significant cardiovascular, neurological, musculoskeletal, or other physical abnormality compared with the one youth in five, or an estimated 4.9 million youths, with such abnormalities. The difference in these rates between children and youths appears to be due primarily to conditions, such as acne, associated with puberty and other aspects of maturation.

3. From the medical history, consistent significant increases with age were found with respect to those who had ever had a serious accident, the rate nearly tripling between 6 and 17 years; the proportion who had hay fever was twice as great among the older youths as among the younger children; the proportion with heart conditions nearly doubled, increasing from 3.5 percent among 6-year-olds to 5.9 percent among 17-year-old youths. The proportion who had had fits or convulsions remained fairly constant across the age range in both studies at about 3 percent, while approximately 4 percent of both children and youths were reported to have trouble hearing. The proportion of youths with eye trouble remained at 7 percent, somewhat below that for children, where the question had included the need for glasses.

4. The proportion of those who had had at least one operation increased steadily with age from 24 percent at 6 years to 43 percent among 16- and 17-year-old youths. The majority of these surgical procedures were tonsillectomies or adenoidectomies.

More than one of four children had been hospitalized overnight or longer for surgery (other than tonsillectomy) or for some other condition compared with one-half of the youths.

The proportion taking medicine, the majority (over 90 percent) under doctor's orders, regularly increased with age from 3-5 percent among children and 6-8 percent among youths.

5. Negro children and youths were found on examination to have some significant abnormality more frequently than their white counterparts, though only among children are the differences in rates statistically significant. Children in the West were less frequently found to be abnormal than those in other parts of the country, while for youths the abnormal rate was higher among those in the South than elsewhere.

6. A significant relationship was evident between family income and the health of these children and youths. The proportion found abnormal on examination decreased consistently as family income level increased.

REFERENCES

[1]National Center for Health Statistics: Origin, program, and operation of the U.S. National Health Survey. *Vital and Health Statistics.* PHS Pub. No. 1000-Series 1-No. 1. Public Health Service. Washington. U.S. Government Printing Office, Aug. 1963.

[2]National Center for Health Statistics: Plan and initial program of the Health Examination Survey. *Vital and Health Statistics.* PHS Pub. No. 1000-Series 1-No. 4. Public Health Service. Washington. U.S. Government Printing Office, July 1965.

[3]National Center for Health Statistics: Cycle I of the Health Examination Survey, sample and response, United States, 1960-1962. *Vital and Health Statistics.* PHS Pub. No. 1000-Series 11-No. 1. Public Health Service. Washington. U.S. Government Printing Office, Apr. 1964.

[4]National Center for Health Statistics: Plan, operation, and response results of a program of children's examinations. *Vital and Health Statistics.* PHS Pub. No. 1000-Series 1-No. 5. Public Health Service. Washington. U.S. Government Printing Office, Oct. 1967.

[5]National Center for Health Statistics: Plan and operation of a Health Examination Survey of U.S. youth 12-17 years of age. *Vital and Health Statistics.* PHS Pub. No. 1000-Series 1-No. 8. Public Health Service. Washington. U.S. Government Printing Office, Sept. 1969.

[6]National Center for Health Statistics: Sample design and estimation procedures for a National Health Examination Survey of children. *Vital and Health Statistics.* PHS Pub. No. 1000-Series 2-No. 43. Public Health Service. Washington. U.S. Government Printing Office, Aug. 1971.

[7]National Center for Health Statistics: Quality control in a National Health Examination Survey. *Vital and Health Statistics.* PHS Pub. No. 1000-Series 2-No. 44. Public Health Service. Washington. U.S. Government Printing Office, Feb. 1972.

[8]Yankauer, A.; Lawrence, R.; and Ballow, L.; A Study of Periodic School Medical Examinations. III. The Remediability of Certain Categories of "Defects." *Am.J.Public Health* 47:1421-1433, Nov. 1957.

[9]Yankauer, A. and Lawrence, R.: A Study of Periodic School Medical Examinations. I. Methods and Initial Findings. *Am.J.Public Health.* 45:71-83, Jan. 1955.

[10]Gilbert, A.: Lewis, A.: and Day, R. W.: Project Head Start. An Evaluation of the Medical Components in California. *Calif. Med.* 106:382-387, May 1957.

[11]Commission on Chronic Illness: *Chronic Illness in a Large City. The Baltimore Study.* Chronic Illness in the United States. Vol. IV. Cambridge, Mass. Harvard University Press, 1957.

[12]Trussell, R. E. and Elinson, J.: *Chronic Illness in a Rural Area. The Hunterdon Study.* Chronic Illness in the United States. Vol. III. Cambridge, Mass. Harvard University Press, 1959.

[13]National Center for Health Statistics: Visual acuity of youth. *Vital and Health Statistics.* PHS Pub. No. 1000-Series 11-No. 127. Public Health Service. Washington. U.S. Government Printing Office, May 1973.

[14]National Center for Health Statistics: Children and youth, selected health characteristics, United States, 1958 and 1968. *Vital and Health Statistics.* PHS Pub. No. 1000-Series 10-No. 62. Public Health Service. Washington. U.S. Government Printing Office, Feb. 1971.

[15]National Center for Health Statistics: Health interview responses compared with medical records. *Vital and Health Statistics.* PHS Pub. No. 1000-Series 2-No. 7. Public Health Service. Washington. U.S. Government Printing Office, July 1965.

[16]National Center for Health Statistics: Interview data on chronic conditions compared with information derived from medical records. *Vital and Health Statistics.* PHS Pub. No. 1000-Series 2-No. 23. Public Health Service. Washington. U.S. Government Printing Office, May 1967.

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Table 1. Percent of children in 1963-65 and youths in 1966-70 with specified parent ratings of present health, health a worry to parents, and significant abnormal findings on survey examination, by age and sex, with standard errors for totals: United States

Age, sex, and survey	Parent's rating of present health					Parent considers present health a problem	Physician's finding of significant abnormality on survey examination	Finding of otitis media[1] on survey examination
	Excellent	Very good	Good	Fair	Poor			
	Percent							
Children								
Both sexes 6-11 years	---	51.8	42.9	4.9	0.4	19.0	11.2	1.6
6 years	---	51.8	43.1	4.8	0.3	17.9	10.9	2.6
7 years	---	50.9	44.1	4.6	0.4	17.8	12.0	2.1
8 years	---	54.9	40.3	4.4	0.4	17.3	11.3	1.2
9 years	---	50.2	43.6	5.6	0.6	21.4	9.9	1.6
10 years	---	50.7	43.7	5.2	0.4	20.3	10.2	0.8
11 years	---	51.7	42.8	5.0	0.5	19.6	13.2	1.2
Boys 6-11 years	---	51.6	43.2	4.8	0.4	19.0	12.2	1.8
6 years	---	50.4	45.5	3.5	0.6	19.6	13.5	2.5
7 years	---	50.5	44.0	5.2	0.3	17.7	13.2	2.8
8 years	---	54.9	39.6	5.1	0.4	16.2	10.3	1.2
9 years	---	50.1	43.8	5.6	0.5	21.6	11.1	1.9
10 years	---	52.5	42.6	4.5	0.4	18.7	10.9	0.6
11 years	---	51.2	43.8	4.7	0.3	20.5	14.4	1.4
Girls 6-11 years	---	51.8	42.7	5.1	0.4	19.0	10.2	1.4
6 years	---	53.3	40.7	6.0	-	16.2	8.2	2.8
7 years	---	51.4	44.2	4.0	0.4	17.8	10.9	1.4
8 years	---	54.9	41.0	3.7	0.4	18.5	12.3	1.2
9 years	---	50.2	43.5	5.6	0.7	21.2	8.7	1.3
10 years	---	48.9	44.8	5.8	0.5	22.0	9.5	1.0
11 years	---	52.4	41.8	5.2	0.6	18.7	11.9	0.8
Youths								
Both sexes 12-17 years	33.0	33.9	29.5	3.3	0.3	14.6	21.8	1.8
12 years	36.7	31.4	29.3	2.3	0.3	12.4	19.0	1.7
13 years	30.7	37.8	28.1	3.0	0.4	13.8	20.9	2.1
14 years	34.9	31.2	30.6	3.0	0.3	15.6	23.1	2.1
15 years	30.8	33.1	31.0	4.8	0.3	16.4	22.3	1.0
16 years	34.3	35.7	27.1	2.6	0.3	12.7	22.0	1.8
17 years	30.1	34.8	30.8	4.2	0.1	16.8	24.0	2.0
Boys 12-17 years	34.4	34.5	27.7	3.2	0.2	14.6	23.0	1.8
12 years	38.5	32.3	26.7	2.1	0.4	11.0	21.6	1.7
13 years	30.6	41.6	24.6	2.8	0.4	13.9	21.9	2.2
14 years	39.5	29.3	27.8	2.9	0.5	15.7	25.4	1.4
15 years	33.0	32.7	30.6	3.5	0.2	16.3	20.6	0.7
16 years	35.1	35.6	26.4	2.9	-	12.4	21.8	2.7
17 years	28.9	35.3	30.5	5.3	-	18.9	26.8	2.0
Girls 12-17 years	31.5	33.4	31.3	3.4	0.4	14.5	20.6	1.8
12 years	34.9	30.4	31.9	2.5	0.3	13.8	16.2	1.6
13 years	30.8	34.0	31.7	3.2	0.3	13.7	19.9	2.1
14 years	30.1	33.1	33.4	3.2	0.2	15.5	20.6	2.8
15 years	28.5	33.5	31.4	6.1	0.5	16.6	24.0	1.3
16 years	33.4	35.7	27.8	2.4	0.7	13.0	22.2	0.8
17 years	31.3	34.3	31.1	3.2	0.1	14.8	21.1	2.0
	Standard error							
Children 6-11 years	---	1.15	0.97	0.31	0.07	0.62	0.87	---
Boys 6-11 years	---	1.40	1.16	0.31	0.17	0.77	0.95	---
Girls 6-11 years	---	1.13	1.03	0.43	0.08	0.84	0.94	---
Youths 12-17 years	0.94	0.81	1.17	0.22	0.06	0.55	2.07	---
Boys 12-17 years	1.02	0.95	1.32	0.31	0.05	0.72	2.27	---
Girls 12-17 years	1.18	1.09	1.34	0.30	0.11	0.66	2.06	---

[1]Included as significant abnormality in youths' but not children's examination.

Table 2. Proportion of children in 1963-65 and youths in 1966-70 with health a worry to parents by parent's rating of present health; and significant abnormal findings on survey examination by parent's assessment of health, by age and sex, with standard errors for totals: United States

Age, sex, and survey	Prevalence of a health problem—present health rated					Prevalence of significant examination finding						
						Present health rated—					Present health—	
	Excellent	Very good	Good	Fair	Poor	Excellent	Very good	Good	Fair	Poor	A worry	Not a worry
Children	Rate per 100											
Both sexes 6-11 years	---	8.8	24.8	69.5	92.7	---	9.4	12.2	20.4	39.6	17.0	9.9
6 years	---	9.4	22.5	61.9	100.0	---	10.5	11.2	13.3	0.0	11.6	10.7
7 years	---	7.4	24.1	67.0	79.9	---	8.4	14.4	28.5	39.9	22.4	9.8
8 years	---	7.6	23.9	71.9	83.3	---	8.8	13.4	19.8	45.0	18.2	9.7
9 years	---	10.8	26.4	66.9	91.6	---	9.3	9.6	15.9	34.8	14.8	8.6
10 years	---	7.8	27.6	74.8	100.0	---	7.8	10.4	26.8	74.0	15.8	8.8
11 years	---	9.9	24.2	75.1	100.0	---	11.5	14.2	18.8	37.0	19.8	11.6
Boys 6-11 years	---	8.4	24.9	73.8	94.6	---	9.7	13.8	23.5	35.8	18.2	10.8
6 years	---	11.4	24.1	62.4	100.0	---	12.8	13.8	22.2	0.0	15.0	13.1
7 years	---	6.1	24.0	74.9	55.3	---	9.7	15.3	26.5	55.3	19.6	11.6
8 years	---	6.6	21.2	74.0	100.0	---	8.5	11.9	14.2	37.4	15.2	9.1
9 years	---	10.0	27.8	69.3	100.0	---	8.7	11.8	21.0	79.0	19.1	9.0
10 years	---	5.4	27.7	80.6	100.0	---	8.4	11.6	29.3	48.1	18.0	9.3
11 years	---	11.2	24.4	80.2	100.0	---	10.1	18.0	29.2	0.0	21.7	12.4
Girls 6-11 years	---	9.2	24.6	65.3	90.6	---	9.1	10.5	17.3	43.7	15.8	9.0
6 years	---	7.4	20.6	61.5	-	---	8.3	8.1	7.8	-	7.4	8.4
7 years	---	8.7	24.2	56.5	100.0	---	7.0	13.4	31.3	27.4	25.3	7.8
8 years	---	8.7	26.6	69.0	69.3	---	9.0	14.8	27.7	51.5	21.0	10.4
9 years	---	11.5	25.0	64.4	84.9	---	9.9	7.2	10.7	0.0	10.2	8.3
10 years	---	10.6	27.4	70.1	100.0	---	7.2	9.2	24.7	100.0	13.8	8.3
11 years	---	8.7	23.9	70.2	100.0	---	13.0	10.2	9.4	59.3	17.6	10.7
Youths												
Both sexes 12-17 years	3.2	11.6	23.7	71.7	77.8	16.9	19.6	26.8	45.6	64.0	36.8	19.3
12 years	2.9	9.0	22.2	76.6	74.9	15.1	16.6	25.0	39.7	14.4	35.3	16.7
13 years	3.7	11.0	21.1	75.3	78.4	15.6	19.4	23.8	55.8	100.0	29.2	19.6
14 years	4.1	12.3	26.1	68.8	82.7	18.0	21.0	27.4	57.6	38.9	42.4	19.4
15 years	2.4	13.4	24.8	71.9	47.1	15.8	20.7	26.8	44.6	78.0	42.6	18.4
16 years	2.4	10.6	22.4	62.0	100.0	18.4	17.6	30.1	37.1	100.0	30.9	20.8
17 years	3.6	13.7	25.1	74.0	100.0	19.0	22.6	28.3	38.2	0.0	37.7	21.1
Boys 12-17 years	3.7	12.2	24.1	71.2	81.4	19.0	23.0	25.0	46.1	65.1	35.1	20.9
12 years	2.3	7.0	22.6	73.8	100.0	19.7	19.2	25.4	44.5	27.2	35.0	20.0
13 years	5.2	10.8	21.7	76.6	64.4	19.2	21.8	20.4	52.5	100.0	25.9	21.2
14 years	3.5	15.1	26.5	75.6	77.4	20.7	26.6	26.9	64.3	50.9	46.6	21.5
15 years	3.4	15.6	24.6	69.7	100.0	14.6	21.0	25.6	32.9	100.0	38.2	17.4
16 years	2.6	11.2	22.2	57.6	0.0	18.4	21.8	24.8	35.0	-	21.9	21.8
17 years	6.3	14.5	26.6	72.8	0.0	21.2	28.6	26.5	47.5	-	38.4	24.1
Girls 12-17 years	2.6	11.0	23.3	72.2	75.1	14.6	16.0	28.5	45.2	63.1	38.5	17.6
12 years	3.7	11.2	21.8	79.1	46.7	9.7	13.8	24.6	35.6	0.0	35.6	13.2
13 years	2.1	11.3	20.6	74.1	100.0	11.9	16.4	26.6	58.9	100.0	32.6	17.8
14 years	5.0	9.8	25.8	62.7	100.0	14.4	15.9	27.9	51.6	0.0	38.1	17.4
15 years	1.2	11.2	25.1	73.2	29.4	17.2	20.4	28.0	51.4	70.6	47.1	19.4
16 years	2.3	10.0	22.7	67.3	100.0	18.4	13.2	35.2	39.6	100.0	39.7	19.7
17 years	1.0	12.8	23.6	76.1	100.0	17.0	16.4	30.1	22.6	0.0	36.8	18.3
	Standard error											
Children 6-11 years	---	0.45	1.00	2.90	4.97	---	0.96	1.13	2.90	6.29	1.35	0.83
Boys 6-11 years	---	0.77	1.10	4.38	7.69	---	1.10	1.30	4.04	12.33	1.87	0.89
Girls 6-11 years	---	0.69	1.48	3.71	7.17	---	1.04	1.29	3.58	8.74	1.55	0.93
Youths 12-17 years	0.32	0.72	1.35	3.26	11.65	1.77	2.39	2.59	3.83	15.99	2.47	2.09
Boys 12-17 years	0.57	1.16	1.47	4.29	14.22	2.35	2.75	2.52	4.36	19.46	2.94	2.31
Girls 12-17 years	0.53	0.82	1.83	4.78	18.44	1.48	2.28	3.25	4.85	19.72	2.71	2.06

Table 3. Percent of children in 1963-65 and youths in 1966-70 with specific abnormality among those with abnormal findings on survey examination by age and sex, with standard errors for totals: United States

Age, sex, and survey	Significant examination findings								
	Cardiovascular	Injury residual	Neuromuscular-joint	Musculoskeletal	Neurological	Other congenital	Other	Neuromuscular-joint without accident noted	Other finding without mention of congenital condition
Children	Percent with condition among abnormals								
Both sexes 6-11 years	22.9	13.7	31.8	---	---	23.6	28.6	29.6	26.1
6 years	24.3	10.9	40.7	---	---	21.4	29.7	36.2	28.5
7 years	24.9	6.9	30.7	---	---	21.9	30.3	29.2	27.4
8 years	26.8	13.2	34.8	---	---	19.2	25.8	32.7	23.7
9 years	20.9	17.3	31.0	---	---	25.8	27.5	29.9	23.8
10 years	20.6	12.5	29.5	---	---	36.0	28.8	25.8	24.7
11 years	19.4	21.6	24.9	---	---	19.3	29.0	24.9	27.7
Boys 6-11 years	21.8	13.5	32.9	---	---	22.6	28.9	30.2	27.0
6 years	24.5	11.5	38.3	---	---	22.9	26.9	34.3	27.7
7 years	25.1	5.5	36.9	---	---	21.7	29.9	34.6	26.7
8 years	23.0	13.9	35.7	---	---	18.6	26.6	33.1	24.4
9 years	20.7	14.9	27.9	---	---	15.9	34.3	28.0	32.4
10 years	17.1	13.2	29.9	---	---	36.8	24.4	23.5	21.6
11 years	18.9	21.6	27.8	---	---	20.1	30.9	26.4	28.5
Girls 6-11 years	24.4	14.1	30.4	---	---	24.7	28.1	29.0	25.0
6 years	23.9	9.8	45.0	---	---	18.7	34.5	40.1	30.1
7 years	24.7	8.4	23.0	---	---	22.0	30.8	22.9	28.2
8 years	30.2	12.6	34.0	---	---	19.7	2[illegible]	32.4	23.0
9 years	21.3	20.4	35.4	---	---	37.4	18.[illegible]	32.5	12.3
10 years	24.6	11.7	28.9	---	---	35.0	34.1	28.3	28.4
11 years	20.0	21.6	21.2	---	---	18.2	26.4	22.9	26.6
Youths									
Both sexes 12-17 years	21.2	---	34.4	33.3	7.7	---	56.9	---	---
12 years	19.3	---	36.2	36.1	6.4	---	54.5	---	---
13 years	19.7	---	33.9	34.4	6.3	---	54.7	---	---
14 years	24.2	---	32.9	30.7	8.7	---	55.3	---	---
15 years	19.3	---	37.7	35.5	9.6	---	55.7	---	---
16 years	25.6	---	31.9	31.5	6.7	---	59.0	---	---
17 years	19.2	---	33.3	31.8	8.0	---	62.3	---	---
Boys 12-17 years	21.3	---	36.6	37.1	7.4	---	54.8	---	---
12 years	17.1	---	34.0	37.1	4.6	---	54.2	---	---
13 years	20.3	---	39.5	41.5	6.6	---	50.8	---	---
14 years	23.0	---	33.0	33.3	7.8	---	53.6	---	---
15 years	19.8	---	44.6	40.9	11.5	---	54.4	---	---
16 years	24.8	---	36.1	38.4	5.5	---	54.4	---	---
17 years	22.6	---	33.8	32.6	8.5	---	61.0	---	---
Girls 12-17 years	21.1	---	31.4	28.9	7.9	---	59.4	---	---
12 years	22.1	---	38.5	34.7	8.7	---	54.9	---	---
13 years	18.9	---	27.3	26.2	5.9	---	59.2	---	---
14 years	25.8	---	32.0	27.3	9.7	---	57.5	---	---
15 years	18.8	---	31.7	30.7	8.0	---	56.8	---	---
16 years	26.4	---	27.6	24.5	7.9	---	63.6	---	---
17 years	14.7	---	32.6	30.8	7.4	---	64.0	---	---
	Standard error								
Children 6-11 years	---	---	3.75	---	---	---	3.52	---	---
Boys 6-11 years	---	---	4.15	---	---	---	3.81	---	---
Girls 6-11 years	---	---	4.27	---	---	---	3.91	---	---
Youth 12-17 years	---	---	---	---	---	---	---	---	---
Boys 12-17 years	---	---	---	---	---	---	---	---	---
Girls 12-17 years	---	---	---	---	---	---	---	---	---

Table 4. Percent of children in 1963-65 and youths in 1966-70 with a medical history of selected illnesses or other physical conditions, operations, hospitalization, or exercise restriction, by age and sex, with standard errors for totals: United States

Medical history item	Both sexes						
	6-11 years	6 years	7 years	8 years	9 years	10 years	11 years
	Percent						
Infective diseases							
Chickenpox	---	---	---	---	---	---	---
Measles	85.8	72.8	80.9	87.7	89.9	92.8	92.0
Mumps	48.8	37.5	43.9	50.6	51.1	55.1	55.4
Scarlet fever	3.8	3.0	3.4	3.7	3.4	5.3	4.3
Whooping cough	9.4	6.8	7.2	8.1	10.4	11.2	12.7
Accidents							
Broken bones	7.8	5.5	5.5	8.3	7.3	8.3	12.3
Knocked unconscious	3.4	2.2	3.2	3.3	2.9	3.9	5.2
Scars from burns	4.5	5.8	4.6	3.4	5.1	4.1	4.2
Other accidents	4.2	3.3	3.8	5.2	3.7	5.7	3.6
Allergies and related conditions							
Asthma	5.3	4.2	6.6	4.0	5.5	5.5	5.8
Hay fever	4.6	3.5	3.5	3.8	5.8	5.4	5.6
Other allergies	11.4	11.3	10.2	13.2	12.4	11.0	10.5
Kidney condition	3.9	3.9	3.5	3.3	4.2	4.0	4.3
Heart condition	3.7	3.5	3.4	4.0	3.1	3.9	4.2
Respiratory conditions							
Sore throat	11.7	11.7	11.4	11.4	11.8	11.8	12.0
Colds	21.0	26.4	25.0	20.3	17.5	19.5	16.7
Coughs	10.7	13.9	11.9	11.5	10.5	9.1	7.1
Bronchitis	15.7	17.4	16.7	16.4	15.4	15.0	13.2
Chest colds	6.2	7.4	7.1	6.1	6.3	6.2	4.3
Pneumonia	---	---	---	---	---	---	---
Sensory-neurological conditions							
Convulsions or fits	3.3	2.7	3.3	3.4	3.8	4.3	2.4
Eye trouble	14.0	6.4	9.8	13.2	16.1	18.3	20.8
Trouble hearing	4.3	3.7	4.6	3.3	4.8	4.6	4.8
Earaches	26.8	28.3	30.6	25.4	25.7	26.3	23.9
Running ears	11.9	12.3	14.7	11.2	11.6	12.5	8.9
Problem talking	8.4	12.9	9.6	7.5	7.1	6.8	6.2
Trouble walking	2.3	1.6	3.0	2.0	1.7	2.7	2.8
Arm or leg limitation	1.3	1.0	1.0	1.0	0.9	2.0	1.7
Operations	30.8	23.8	25.8	33.4	32.3	34.0	36.0
Hospitalized more than 1 day	26.8	23.4	25.9	28.0	27.5	28.3	28.2
Exercise restricted:							
Ever	5.4	3.9	4.0	5.0	5.8	6.7	7.1
Now	1.5	1.2	1.2	1.4	1.2	1.9	2.0
Taking medicine regularly	4.1	3.7	3.6	3.3	4.7	4.7	4.6

Table 4. Percent of children in 1963-65 and youths in 1966-70 with a medical history of selected illnesses or other physical conditions, operations, hospitalization, or exercise restriction, by age and sex, with standard errors for totals: United States—Con.

Boys							Girls						
6-11 years	6 years	7 years	8 years	9 years	10 years	11 years	6-11 years	6 years	7 years	8 years	9 years	10 years	11 years
Percent													
---	---	---	---	---	---	---	---	---	---	---	---	---	---
85.5	72.1	79.3	90.0	89.8	91.0	91.9	86.2	73.6	82.6	85.3	89.9	94.6	92.1
50.1	36.3	46.6	51.3	54.4	55.7	58.1	47.3	38.9	41.0	50.0	47.7	54.5	52.7
3.8	3.9	3.6	3.6	3.8	4.6	3.0	3.9	2.1	3.2	3.7	2.9	6.1	5.6
8.9	6.3	6.8	7.6	11.2	9.6	12.2	9.8	7.4	7.8	8.6	9.6	12.7	13.2
8.5	5.5	7.7	8.6	7.0	8.8	13.9	7.0	5.5	3.2	8.0	7.5	7.7	10.6
4.0	2.8	3.5	4.0	2.9	4.6	6.7	2.8	1.5	3.0	2.5	3.0	3.3	3.6
4.4	6.0	4.4	3.4	5.5	2.8	4.3	4.7	5.6	4.7	3.4	4.7	5.5	4.0
4.7	3.4	4.5	5.6	4.7	5.6	4.1	3.7	3.1	3.1	4.9	2.7	5.7	3.0
6.5	5.4	8.2	5.2	6.1	8.0	6.1	4.0	2.9	4.9	2.8	4.9	3.0	5.5
5.5	4.5	3.7	4.4	6.1	6.8	7.7	3.6	2.4	3.2	3.2	5.5	4.0	3.4
12.2	12.3	11.1	14.6	12.5	11.0	11.6	10.7	10.2	9.3	11.8	12.4	11.0	9.4
2.6	3.7	1.4	2.5	2.9	1.6	3.7	5.1	4.2	5.6	4.1	5.4	6.4	5.0
4.2	5.2	3.7	5.2	3.2	3.1	5.0	3.1	1.7	3.1	2.8	3.1	4.6	3.5
10.2	10.4	9.4	11.3	11.6	9.0	9.6	13.2	13.1	13.4	11.5	12.0	14.6	14.4
19.9	25.7	24.0	20.5	16.9	16.9	14.8	22.1	27.1	26.0	20.1	18.0	22.2	18.6
11.0	13.7	13.5	13.2	11.0	8.2	6.2	10.4	14.2	10.2	9.8	10.1	10.0	8.1
16.9	16.8	18.2	17.7	17.3	16.9	14.5	14.4	18.1	15.1	15.0	13.3	13.0	11.9
6.5	6.5	8.4	7.8	7.0	5.5	3.7	5.9	8.2	5.7	4.2	5.6	6.8	4.8
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3.5	3.1	4.0	3.7	3.2	4.6	2.3	3.1	2.2	2.6	3.1	4.3	3.9	2.5
12.7	6.1	8.7	11.8	14.5	16.5	19.2	15.3	6.6	10.9	14.6	17.8	20.2	22.5
4.8	5.2	5.3	4.5	5.2	4.3	4.4	3.7	2.2	3.8	2.0	4.5	4.8	5.2
24.8	28.1	30.1	26.6	23.9	20.9	18.5	28.8	28.6	31.1	24.3	27.6	32.0	29.5
12.2	13.1	14.9	13.4	11.1	10.8	9.4	11.6	11.4	14.4	9.1	12.1	14.2	8.3
10.0	14.8	11.2	8.8	8.6	8.5	7.5	6.8	10.9	7.9	6.2	5.5	5.1	5.0
2.5	2.0	4.2	2.4	1.4	2.6	2.4	2.1	1.2	1.8	1.6	2.1	2.8	3.3
1.3	1.1	1.4	1.4	1.0	1.6	1.4	1.2	0.9	0.6	0.6	0.9	2.4	2.0
35.3	28.0	30.5	37.4	36.4	38.1	42.2	26.1	19.4	21.0	29.3	27.9	29.8	29.6
30.0	28.4	28.4	33.0	28.8	30.5	30.7	23.6	18.3	23.4	22.8	26.1	26.1	25.5
5.6	4.7	3.9	5.2	5.7	7.1	7.1	5.2	3.0	4.2	4.7	6.0	6.3	7.1
1.4	1.1	1.0	1.5	1.6	1.7	1.5	1.6	1.2	1.6	1.3	0.9	2.1	2.4
4.0	3.1	3.6	2.8	5.5	4.8	4.5	4.2	4.4	3.6	3.8	4.0	4.6	4.7

Table 4. Percent of children in 1963-65 and youths in 1966-70 with a medical history of selected illnesses or other physical conditions, operations, hospitalization, or exercise restriction, by age and sex, with standard errors for totals: United States—Con.

Medical history item	Both sexes						
	12-17 years	12 years	13 years	14 years	15 years	16 years	17 years
	Percent						
Infective diseases							
Chickenpox	84.1	83.8	84.4	83.7	84.2	85.7	83.0
Measles	92.5	90.4	91.2	93.8	93.3	94.0	92.6
Mumps	64.6	63.6	62.3	64.7	64.6	67.0	65.6
Scarlet fever	5.0	3.7	5.4	4.5	5.0	4.8	6.5
Whooping cough	14.5	10.5	12.7	14.3	15.0	17.4	17.7
Accidents							
Broken bones	17.3	16.4	14.1	16.4	19.3	19.0	18.9
Knocked unconscious	8.[illegible]	7.2	6.9	10.1	8.3	9.7	11.6
Scars from burns	--	---	---	---	---	---	---
Other accidents	12.3	11.2	11.3	11.9	13.0	12.8	13.7
Allergies and related conditions							
Asthma	6.0	5.0	5.1	6.4	6.0	7.1	6.3
Hay fever	9.2	7.1	8.0	8.6	9.6	11.7	10.8
Other allergies	13.6	11.2	14.1	12.6	15.0	14.2	14.4
Kidney condition	4.6	3.3	4.0	4.6	5.6	4.6	5.5
Heart condition	4.9	4.7	4.3	5.2	5.1	4.5	5.9
Respiratory conditions							
Sore throat	---	---	---	---	---	---	---
Colds	---	---	---	---	---	---	---
Coughs	---	---	---	---	---	---	---
Bronchitis	---	---	---	---	---	---	---
Chest colds	---	---	---	---	---	---	---
Pneumonia	11.2	11.1	9.0	12.7	11.9	12.6	9.7
Sensory-neurological conditions							
Convulsions or fits	3.1	3.3	2.6	3.5	2.6	4.1	2.7
Eye trouble	6.8	6.6	8.1	6.2	6.2	5.9	8.0
Trouble hearing	3.7	3.0	2.9	4.6	4.4	3.1	4.1
Ear aches	15.1	19.2	13.9	15.5	16.0	13.5	12.1
Running ears	9.4	9.7	9.3	10.4	9.8	8.2	8.6
Problem talking	4.3	4.9	5.8	3.6	4.0	3.7	3.6
Trouble walking	2.0	2.2	2.0	0.6	2.4	2.0	2.9
Arm or leg limitation	1.7	1.5	0.9	1.9	1.0	2.1	2.6
Operations	39.2	35.8	37.2	37.5	40.3	42.6	42.7
Hospitalized more than 1 day	50.4	47.0	46.8	49.8	51.8	52.4	55.3
Exercise restricted:							
Ever	11.1	7.8	10.0	11.4	11.6	12.6	13.8
Now	4.6	2.8	4.0	4.4	5.6	4.2	7.1
Taking medicine regularly	6.5	5.9	5.8	6.3	7.2	6.0	8.0

Table 4. Percent of children in 1963-65 and youths in 1966-70 with a medical history of selected illnesses or other physical conditions, operations, hospitalization, or exercise restriction, by age and sex, with standard errors for totals: United States—Con.

Boys							Girls						
12-17 years	12 years	13 years	14 years	15 years	16 years	17 years	12-17 years	12 years	13 years	14 years	15 years	16 years	17 years
Percent													
83.7	82.5	84.3	82.4	85.5	85.6	82.2	84.5	85.0	84.5	85.0	83.0	85.9	83.8
92.4	90.5	89.9	93.8	93.0	94.3	93.2	92.6	90.2	92.4	93.8	93.7	93.7	92.0
67.0	65.5	65.2	63.0	68.5	71.7	68.4	62.2	61.7	59.4	66.4	60.7	62.2	62.7
4.7	3.1	5.6	4.4	4.1	5.2	5.9	5.2	4.2	5.2	4.6	5.9	4.3	7.2
14.7	11.6	12.7	13.0	14.9	19.4	17.6	14.2	9.2	12.7	15.6	15.1	15.3	17.8
21.1	19.6	14.7	20.3	24.0	25.6	23.4	13.3	13.1	13.4	12.4	14.5	12.2	14.4
10.0	8.3	7.6	10.6	8.8	10.6	14.5	7.8	6.0	6.1	9.6	7.8	8.8	8.7
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15.9	14.4	12.9	16.5	14.5	17.8	19.7	8.6	7.9	9.7	7.2	11.4	7 6	7.7
6.8	6.3	5.4	7.6	6.8	8.0	7.1	5.1	3.8	4.7	5.2	5.3	6.1	5.6
10.0	8.8	9.1	8.3	9.9	12.7	11.4	8.5	5.4	6.8	8.8	9.3	10.6	10.2
12.8	11.2	13.7	12.0	14.2	12.0	13.5	14.4	11.3	14.4	13.3	15.9	16.4	15.2
3.0	2.5	2.8	3.1	3.1	3.0	3.3	6.2	4.2	5.2	6.1	8.1	6.2	7.8
5.3	4.7	5.1	5.9	5.3	4.3	6.8	4.5	4.6	3.5	4.5	4.9	4.7	4.9
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10.9	10.2	9.7	11.2	12.2	13.4	8.9	11.4	12.0	8.4	14.2	11.6	11.7	10.6
3.5	3.4	2.4	3.9	3.0	4.8	3.4	2.8	3.1	2.7	3.1	2.2	3.4	2.1
6.7	5.4	7.5	7.3	6.0	5.8	8.3	7.0	7.8	8.6	5.0	6.4	6.0	7.7
3.7	3.3	3.3	3.8	4.3	2.8	4.5	3.7	2.6	2.5	5.3	4.5	3.4	3.8
11.7	14.5	11.7	11.8	13.6	8.8	9.2	18.6	23.9	16.2	19.2	18.4	18.3	15.0
9.1	10.2	9.2	10.1	8.7	6.4	10.0	9.6	9.2	9.4	10.7	10.8	10.0	7.2
5.2	5.1	7.3	4.6	5.4	4.6	4.1	3.3	4.7	4.2	2.5	2.7	2.8	3.1
2.4	1.8	2.6	0.5	3.1	2.8	3.7	1.6	2.6	1.4	0.8	1.6	1.2	2.0
1.9	0.9	1.1	2.3	1.4	2.3	3.6	1.4	2.0	0.8	1.4	0.5	1.7	1.6
41.9	38.2	42.4	44.0	43.3	41.2	42.8	36.4	33.2	31.8	30.8	37.2	44.1	42.5
53.8	50.6	50.4	55.2	55.1	54.5	58.0	46.9	43.2	43.2	44.2	48.5	50.3	52.7
11.8	8.5	10.8	12.1	11.7	13.7	14.8	10.4	7.1	9.3	10.6	11.5	11.6	12.8
4.6	2.8	5.0	4.0	5.3	4.5	6.3	4.7	3.0	3.0	4.9	5.9	4.0	7.8
6.5	7.1	6.2	6.0	6.0	4.8	8.8	6.5	4.7	5.4	6.7	8.4	7.1	7.2

Table 4. Percent of children in 1963-65 and youths in 1966-70 with a medical history of selected illnesses or other physical conditions, operations, hospitalization, or exercise restriction, by age and sex, with standard errors for totals: United States--Con.

Medical history item	Children 6-11 years			Youths 12-17 years		
	Both sexes	Boys	Girls	Both sexes	Boys	Girls
	Standard error					
Infective diseases						
Chickenpox	---	---	---	1.03	1.21	1.23
Measles	0.87	0.78	1.16	0.66	0.83	0.64
Mumps	1.34	1.69	1.35	0.87	1.07	1.09
Scarlet fever	0.42	0.42	0.59	0.47	0.50	0.65
Whooping cough	1.02	0.94	1.17	0.70	0.80	0.85
Accidents						
Broken bones	0.37	0.45	0.52	0.48	0.76	0.75
Knocked unconscious	0.25	0.32	0.32	0.37	0.43	0.65
Scars from burns	0.26	0.34	0.35	---	---	---
Other accidents	0.26	0.39	0.35	0.66	0.76	0.87
Allergies and related conditions						
Asthma	0.35	0.53	0.40	0.37	0.61	0.44
Hay fever	0.35	0.44	0.38	0.61	0.70	0.82
Other allergies	0.54	0.69	0.71	0.75	0.70	0.99
Kidney condition	0.32	0.29	0.50	0.45	0.36	0.63
Heart condition	0.25	0.31	0.42	0.36	0.44	0.51
Respiratory conditions						
Sore throat	0.57	0.72	0.67	---	---	---
Colds	0.74	0.78	0.90	---	---	---
Coughs	0.40	0.67	0.54	---	---	---
Bronchitis	0.73	0.88	0.84	---	---	---
Chest colds	0.37	0.50	0.49	---	---	---
Pneumonia	---	---	---	0.53	0.56	0.69
Sensory-neurological conditions						
Convulsions or fits	0.18	0.32	0.38	0.23	0.33	0.32
Eye trouble	0.54	0.72	0.68	0.51	0.52	0.60
Trouble hearing	0.38	0.43	0.49	0.28	0.31	0.42
Earaches	0.84	1.01	1.00	0.80	0.77	1.05
Running ears	0.50	0.56	0.62	0.53	0.95	0.64
Problem talking	0.47	0.47	0.63	0.21	0.30	0.32
Trouble walking	0.15	0.25	0.24	0.19	0.25	0.24
Arm or leg limitation	0.12	0.23	0.14	0.22	0.34	0.26
Operation	0.47	0.77	0.43	0.93	1.18	1.14
Hospitalized more than 1 day	0.95	0.98	1.25	1.14	1.33	1.20
Exercise restricted:						
Ever	0.31	0.44	0.38	0.49	0.72	0.51
Now	1.87	3.41	3.29	0.24	0.39	0.37
Taking medicine regularly	0.32	0.33	0.49	0.35	0.43	0.54

Table 5. Percent of children in 1963-65 with a medical history of other selected serious illnesses, by age and sex, with standard errors for totals: United States

Age, sex, and survey	Rheumatic fever	Poliomyelitis	Diphtheria	Meningitis	Tuberculosis	Diabetes	Epilepsy	Chorea	Cerebral palsy
Children	Percent								
Both sexes 6-11 years	0.6	0.2	0.1	0.2	0.1	0.1	0.3	0.1	0.1
6 years	0.2	0.0	0.1	0.2	0.2	0.0	0.3	0.0	0.0
7 years	0.2	0.1	0.0	0.4	0.1	0.0	0.2	0.1	0.2
8 years	0.5	0.2	0.3	0.3	0.0	0.0	0.2	0.0	0.1
9 years	0.5	0.0	0.2	0.2	0.1	0.0	0.4	0.2	0.2
10 years	1.1	0.3	0.0	0.2	0.0	0.2	0.3	0.0	0.2
11 years	0.8	0.7	0.0	0.1	0.1	0.3	0.4	0.1	0.1
Boys 6-11 years	0.5	0.2	0.1	0.3	0.1	0.1	0.2	0.1	0.1
6 years	0.2	0.0	0.1	0.4	0.0	0.0	0.0	0.0	0.0
7 years	0.0	0.0	0.0	0.5	0.0	0.0	0.2	0.0	0.2
8 years	0.8	0.2	0.2	0.3	0.0	0.0	0.0	0.0	0.0
9 years	0.6	0.0	0.2	0.4	0.2	0.0	0.6	0.3	0.2
10 years	0.8	0.2	0.0	0.0	0.0	0.0	0.4	0.0	0.2
11 years	0.7	0.8	0.0	0.0	0.1	0.6	0.3	0.1	0.1
Girls 6-11 years	0.6	0.2	0.1	0.2	0.1	0.1	0.4	0.1	0.1
6 years	0.3	0.0	0.0	0.0	0.3	0.0	0.6	0.0	0.0
7 years	0.4	0.2	0.0	0.4	0.1	0.0	0.2	0.2	0.1
8 years	0.3	0.2	0.3	0.3	0.0	0.0	0.4	0.0	0.1
9 years	0.3	0.0	0.2	0.1	0.0	0.0	0.3	0.1	0.2
10 years	1.4	0.5	0.0	0.3	0.0	0.4	0.2	0.0	0.2
11 years	0.9	0.6	0.0	0.3	0.0	0.0	0.4	0.0	0.2
	Standard error								
Both sexes 6-11 years	0.11	0.05	0.02	0.08	0.03	0.04	0.07	0.03	0.04
Boys 6-11 years	0.12	0.09	0.02	0.11	0.03	0.07	0.07	0.04	0.06
Girls 6-11 years	0.18	0.10	0.05	0.08	0.04	0.04	0.13	0.04	0.06

Table 6. Median age at onset and prevalence rates for degree of severity of most serious illness among youths 12-17 years, by age and sex, with standard errors for totals: United States, 1966-70

Age and sex	Degree of severity				Lasting effects	Median age at onset in years
	Total	Mild	Moderate	Severe		
	Percent					
Both sexes 12-17 years	71.9	17.9	34.5	19.5	8.0	6.1
Boys 12-17 years	73.5	19.2	34.3	20.0	8.0	6.1
Girls 12-17 years	70.3	16.6	34.7	19.0	8.0	6.1
Both sexes						
12 years	70.8	18.9	34.5	17.4	8.1	5.8
13 years	72.6	17.0	35.7	19.9	8.3	5.4
14 years	74.7	19.0	35.6	20.1	7.2	5.9
15 years	71.6	16.4	33.2	22.0	8.0	6.4
16 years	71.6	16.1	37.6	17.9	6.8	6.5
17 years	70.1	20.0	30.1	20.0	9.9	6.7
	Standard error					
Both sexes	---	0.70	1.18	0.74	0.37	---
Boys	---	1.15	1.47	0.93	0.55	---
Girls	---	0.73	1.13	1.00	0.62	---

Table 7. Percent of youths 12-17 years, by type of their most serious illness: United States, 1966-70

Most serious illness	Both sexes	Boys	Girls
	Percent		
Total 12-17 years	100.0	100.0	100.0
Chickenpox	3.7	3.3	4.3
Measles	14.3	14.0	14.6
Mumps	2.2	2.5	1.7
Scarlet fever	1.5	1.5	1.5
Whooping cough	1.4	1.1	1.8
Accidental injuries	1.1	1.6	0.7
Asthma with or without hay fever	2.2	2.5	1.9
Rheumatic fever	0.9	1.0	0.9
Streptococcal sore throat	1.2	0.8	1.7
Colds	3.9	3.6	4.1
Influenza	1.8	1.6	2.0
Pneumonia	6.3	6.4	6.2
Ear conditions	1.3	1.3	1.3
Hypertrophied tonsils	1.0	0.9	1.1
Appendicitis	1.1	1.3	0.8
Genito-urinary conditions	1.8	1.2	2.5
All others	13.0	13.8	12.1
None reported	41.3	41.6	40.8

Table 8. Percent of children in 1963-65 and youths in 1966-70 with significant abnormal findings on survey examination among those with or without selected medical history conditions, by age, with standard errors for totals: United States

Medical history item	Reported in medical history	Children							Youths						
		6-11 years	6 years	7 years	8 years	9 years	10 years	11 years	12-17 years	12 years	13 years	14 years	15 years	16 years	17 years
		Percent abnormal on examination													
Chickenpox	Yes	---	---	---	---	---	---	---	21.4	18.2	20.8	22.7	21.6	22.4	23.2
	No	---	---	---	---	---	---	---	24.3	22.8	22.2	25.1	27.3	20.5	27.5
Measles	Yes	11.1	10.9	12.2	10.2	10.0	10.0	13.1	22.0	18.8	20.8	23.4	22.6	22.4	24.0
	No	11.9	11.0	11.9	15.0	9.5	12.3	12.9	20.6	21.8	21.6	17.7	18.6	19.1	23.4
Mumps	Yes	11.0	10.5	10.9	10.7	9.8	11.2	12.8	21.8	17.7	20.6	22.2	23.0	22.4	25.2
	No	11.5	11.4	13.1	11.5	10.4	9.1	13.4	22.1	21.1	21.8	24.6	22.0	21.4	21.7
Scarlet fever	Yes	12.3	8.0	14.8	16.1	10.8	8.1	16.4	20.9	18.1	22.4	25.4	16.2	25.2	18.4
	No	11.1	10.8	11.8	11.1	10.0	10.3	12.9	21.8	18.9	20.8	22.7	22.8	21.9	24.3
Whooping cough	Yes	14.2	15.8	10.2	13.9	14.2	14.1	16.3	25.3	27.4	27.1	25.4	23.0	23.7	25.8
	No	10.8	10.3	12.0	11.1	9.4	9.6	12.5	21.2	17.9	20.0	22.4	22.4	21.7	23.6
Broken bones	Yes	15.6	16.4	15.4	21.5	15.2	9.0	15.8	24.9	27.8	20.8	22.7	21.6	25.8	30.1
	No	10.9	10.6	11.8	10.3	9.5	10.4	12.8	21.2	17.3	21.0	23.1	22.5	21.4	22.4
Knocked unconscious	Yes	12.6	13.7	12.4	11.9	9.8	14.4	12.8	23.3	19.4	19.3	26.6	19.2	27.4	25.4
	No	11.1	10.9	11.7	11.1	10.0	10.1	12.6	21.7	18.9	20.9	22.8	22.7	21.7	23.8
Scars from burns	Yes	15.4	8.5	16.5	20.1	11.8	16.1	23.9	---	---	---	---	---	---	---
	No	11.0	11.0	11.8	10.9	9.7	10.0	12.7	---	---	---	---	---	---	---
Other accidents	Yes	12.7	20.0	15.2	8.5	12.6	5.6	20.6	28.2	26.5	21.6	32.2	24.8	27.9	35.7
	No	11.2	10.5	11.9	11.4	9.8	10.6	13.1	20.9	18.0	20.8	21.8	22.2	21.3	21.9
Asthma	Yes	16.9	19.1	11.9	16.3	21.3	17.6	16.4	30.0	32.3	20.9	41.3	29.6	26.1	28.5
	No	10.8	10.5	11.7	10.9	9.3	9.8	12.9	21.3	18.2	20.7	21.7	22.0	21.8	23.6
Hay fever	Yes	11.7	11.4	8.2	18.6	12.6	11.2	8.7	24.4	20.8	24.7	19.6	27.4	24.8	27.8
	No	11.1	10.7	12.1	11.0	9.6	10.0	13.4	21.5	18.7	20.6	23.0	21.9	21.9	23.5
Other allergies	Yes	13.0	12.3	11.4	17.1	10.6	14.1	11.7	22.4	18.6	19.6	23.4	26.6	20.2	25.1
	No	11.0	10.8	12.3	10.5	9.8	9.6	13.1	21.8	19.1	21.0	22.8	21.8	22.5	23.8
Kidney condition	Yes	14.2	9.7	11.7	13.6	10.4	26.2	13.8	35.7	40.0	39.6	40.3	32.3	32.3	31.8
	No	11.0	10.8	12.0	10.9	10.1	9.3	12.9	21.1	18.3	20.1	22.0	21.7	21.6	23.5
Heart condition	Yes	26.1	14.8	27.3	28.6	20.5	27.0	38.0	26.5	20.5	40.5	23.4	30.0	18.6	33.1
	No	10.6	10.7	11.5	10.5	9.6	9.4	12.0	21.6	18.9	20.4	22.8	22.1	22.2	23.7
Sore throat	Yes	11.9	7.9	15.4	10.5	13.6	10.7	13.1	---	---	---	---	---	---	---
	No	11.2	11.3	11.4	11.4	9.5	10.2	13.3	---	---	---	---	---	---	---
Colds	Yes	12.5	11.0	10.9	12.4	13.3	14.1	15.3	---	---	---	---	---	---	---
	No	10.8	10.5	12.5	10.7	9.2	9.2	12.7	---	---	---	---	---	---	---
Coughs	Yes	13.3	10.6	15.1	16.2	11.0	16.8	9.9	---	---	---	---	---	---	---
	No	11.0	10.8	11.5	10.7	9.9	9.6	13.5	---	---	---	---	---	---	---
Bronchitis	Yes	12.4	11.5	12.5	14.3	12.8	10.5	13.4	---	---	---	---	---	---	---
	No	11.0	10.8	11.8	10.9	9.5	10.4	12.9	---	---	---	---	---	---	---
Chest colds	Yes	2.5	3.2	2.6	2.3	3.1	1.8	1.6	---	---	---	---	---	---	---
	No	2.2	3.1	3.3	1.3	1.0	2.1	2.6	---	---	---	---	---	---	---
Pneumonia	Yes	---	---	---	---	---	---	---	23.3	21.9	15.0	26.6	27.6	25.6	20.6
	No	---	---	---	---	---	---	---	21.6	18.5	21.4	22.3	21.6	21.6	24.3
Convulsions or fits	Yes	14.9	10.4	24.3	19.2	5.4	11.3	24.0	26.9	20.5	40.5	25.6	30.0	18.6	33.1
	No	11.1	10.9	11.6	11.0	10.1	10.2	12.9	21.6	18.9	20.4	22.7	22.3	22.2	23.7
Eye trouble	Yes	19.4	25.4	25.8	24.5	14.9	18.8	14.8	27.6	20.8	22.9	36.6	29.6	28.7	29.3
	No	9.8	9.8	10.4	9.0	8.9	8.2	12.7	21.4	18.8	20.7	22.1	22.0	21.7	23.4
Trouble hearing	Yes	20.2	23.4	24.4	15.9	12.7	28.4	16.2	42.4	42.1	28.4	44.7	45.4	43.8	46.1
	No	10.8	10.4	11.5	11.1	9.7	9.3	13.0	21.1	18.3	20.7	22.0	21.4	21.4	23.0
Earaches	Yes	12.9	8.6	9.8	12.1	12.2	10.7	12.7	26.3	21.8	20.8	29.6	24.8	31.2	33.1
	No	11.4	11.7	13.1	11.1	9.2	10.1	13.4	21.0	18.4	20.9	21.8	21.9	20.7	22.7
Running ears	Yes	13.6	12.8	14.7	15.3	11.5	11.1	16.2	28.1	22.3	25.5	32.5	24.1	23.8	41.9
	No	10.9	10.6	11.5	10.7	9.8	9.9	13.0	21.2	18.6	20.4	21.9	22.2	22.0	22.2
Problem talking	Yes	20.2	21.8	24.7	16.1	16.3	18.9	20.8	30.7	34.8	31.8	30.9	19.1	35.4	30.9
	No	10.4	9.2	10.7	10.8	9.4	9.6	12.6	21.4	18.2	20.2	22.7	22.4	21.6	23.7
Trouble walking	Yes	38.6	40.5	44.1	28.6	41.0	40.5	35.2	58.8	50.2	44.6	87.8	57.8	56.6	72.6
	No	10.6	10.4	11.1	10.8	9.4	9.4	12.6	21.0	18.3	20.4	22.6	21.5	21.3	22.5
Arm or leg limitation	Yes	46.4	60.5	46.0	55.2	52.0	39.9	36.5	63.6	79.6	70.6	53.9	67.2	65.7	59.9
	No	10.8	10.4	11.6	10.7	9.6	9.6	12.6	21.1	18.1	20.4	22.5	21.7	21.1	23.0
Operation	Yes	14.6	16.5	17.1	13.0	11.1	15.2	16.0	23.3	18.8	25.2	24.7	20.5	28.0	23.9
	No	9.8	9.2	10.4	10.4	9.4	7.7	11.7	21.0	19.0	18.7	22.1	23.4	17.8	24.0
Hospitalized more than 1 day	Yes	16.1	16.3	17.5	12.7	14.4	17.1	18.7	24.5	21.8	25.7	24.9	23.1	25.1	26.6
	No	9.2	9.1	9.8	10.6	8.1	7.2	10.8	19.0	16.3	16.6	21.1	21.6	18.8	20.6
Taking medicine regularly	Yes	25.5	13.8	39.8	29.4	20.1	26.1	25.7	38.0	32.2	43.2	43.7	38.9	32.4	37.2
	No	10.7	10.8	11.0	10.7	9.4	9.5	12.6	20.6	17.9	19.5	21.8	21.1	21.3	22.8
Exercise restricted:															
Now	Yes	42.0	35.5	42.6	49.4	26.0	54.7	37.5	56.4	68.2	57.1	68.5	53.0	46.7	51.1
Ever	Yes	17.7	25.4	15.1	12.9	16.6	21.2	16.1	20.1	17.6	19.3	21.0	20.5	21.0	21.8

Table 8. Percent of children in 1963-65 and youths in 1966-70 with significant abnormal findings on survey examination among those with or without selected medical history conditions, by age, with standard errors for totals: United States—Con.

Medical history item	Reported in medical history	Children							Youths						
		6-11 years	6 years	7 years	8 years	9 years	10 years	11 years	12-17 years	12 years	13 years	14 years	15 years	16 years	17 years
		Standard errors													
Chickenpox	Yes	---	---	---	---	---	---	---	1.99	2.08	2.91	2.39	2.36	2.44	2.02
	No	---	---	---	---	---	---	---	3.34	3.64	3.49	4.84	4.18	4.84	5.25
Measles	Yes	0.87	1.34	1.54	1.19	1.42	1.00	1.36	2.02	2.21	2.54	2.41	2.36	2.43	2.13
	No	1.41	2.14	2.19	3.95	3.61	3.56	3.32	3.39	3.82	8.09	5.19	5.79	4.89	4.63
Mumps	Yes	0.97	1.89	1.84	1.49	1.34	1.38	1.57	2.14	2.13	2.57	2.82	2.50	2.84	2.48
	No	0.88	1.41	1.53	1.49	1.73	1.56	1.66	2.21	2.51	3.93	2.44	3.01	2.86	3.14
Scarlet fever	Yes	2.12	5.93	3.91	4.27	5.50	3.58	6.16	3.56	8.88	6.63	6.55	6.97	7.36	4.62
	No	0.87	1.25	1.48	1.18	1.33	1.13	1.24	2.08	2.01	2.87	2.46	2.38	2.36	2.39
Whooping cough	Yes	1.50	3.77	2.69	3.38	3.58	3.42	2.49	3.88	4.93	5.88	3.55	6.07	3.96	4.86
	No	0.85	1.09	1.50	1.30	1.18	1.06	1.47	1.89	1.95	2.75	2.60	2.01	2.35	2.06
Broken bones	Yes	2.18	6.35	3.97	4.82	4.76	3.00	2.75	2.97	4.57	4.41	4.63	3.74	3.42	5.34
	No	0.87	1.21	1.52	1.07	1.28	1.15	1.52	2.01	1.97	2.89	2.45	2.41	2.34	2.14
Knocked unconscious	Yes	2.31	6.94	5.54	6.12	4.40	6.37	5.00	2.64	5.85	5.20	4.80	5.21	3.95	3.82
	No	0.85	1.19	1.49	1.12	1.35	1.07	1.25	2.09	2.21	2.88	2.38	2.36	2.53	2.25
Scars from burns	Yes	2.70	3.81	6.23	11.04	3.42	4.97	7.39	---	---	---	---	---	---	---
	No	0.83	1.29	1.37	1.05	1.33	1.09	1.33	---	---	---	---	---	---	---
Other accidents	Yes	2.65	4.93	4.92	2.62	5.50	4.01	8.36	2.83	3.63	4.28	6.26	4.27	4.29	4.43
	No	0.85	1.17	1.51	1.24	1.42	1.11	1.28	2.04	2.12	2.97	2.38	2.36	2.40	2.16
Asthma	Yes	1.46	4.45	3.81	4.52	4.57	4.99	2.83	3.99	7.19	6.54	7.41	5.97	8.65	5.42
	No	0.90	1.09	1.57	1.24	1.24	1.20	1.41	2.05	1.96	2.86	2.43	2.50	2.26	2.22
Hay fever	Yes	2.30	5.96	4.20	6.34	4.95	4.89	3.80	3.38	7.35	4.63	5.10	5.85	5.40	4.98
	No	0.89	1.19	1.54	1.11	1.50	1.11	1.35	2.06	1.88	2.92	2.58	2.28	2.32	2.22
Other allergy	Yes	1.59	2.89	3.46	4.44	3.14	4.07	3.59	2.13	3.70	4.80	5.31	4.22	3.43	3.96
	No	0.84	1.29	1.62	0.93	1.46	1.14	1.42	2.14	2.13	2.93	2.51	2.40	2.62	2.37
Kidney condition	Yes	1.81	3.66	5.32	5.57	4.89	5.45	4.65	4.20	8.54	8.26	7.01	7.79	5.54	9.84
	No	0.88	1.27	1.61	1.17	1.28	1.17	1.22	2.04	1.99	2.90	2.52	2.32	2.34	2.09
Heart condition	Yes	---	---	---	---	---	---	---	3.77	5.62	7.93	8.04	14.35	4.73	11.02
	No	---	---	---	---	---	---	---	2.08	2.00	2.87	2.49	2.34	2.41	2.26
Sore throat	Yes	1.28	2.52	4.21	2.94	3.01	2.86	3.54	---	---	---	---	---	---	---
	No	0.96	1.37	1.62	1.18	1.36	1.21	1.30	---	---	---	---	---	---	---
Colds	Yes	1.16	1.66	1.37	2.77	2.83	2.33	3.40	---	---	---	---	---	---	---
	No	0.89	1.32	2.04	1.04	1.34	1.18	1.23	---	---	---	---	---	---	---
Coughs	Yes	1.34	2.53	3.48	4.21	3.19	5.17	2.59	---	---	---	---	---	---	---
	No	0.88	1.26	1.50	1.16	1.41	1.21	1.33	---	---	---	---	---	---	---
Bronchitis	Yes	1.48	2.40	2.89	3.10	2.19	2.43	2.32	---	---	---	---	---	---	---
	No	0.84	1.34	1.71	1.12	1.36	1.29	1.25	---	---	---	---	---	---	---
Chest colds	Yes	0.58	1.58	1.95	1.82	2.17	1.89	1.72	---	---	---	---	---	---	---
	No	0.31	0.75	1.09	0.39	0.36	0.68	0.91	---	---	---	---	---	---	---
Pneumonia	Yes	---	---	---	---	---	---	---	2.32	3.54	2.80	5.36	4.07	4.21	4.32
	No	---	---	---	---	---	---	---	2.11	2.00	3.11	2.53	2.50	2.42	2.26
Convulsions or fits	Yes	---	---	---	---	---	---	---	3.64	5.62	7.93	8.52	14.35	4.73	11.02
	No	---	---	---	---	---	---	---	2.07	1.98	2.87	2.69	2.42	2.39	2.26
Eye trouble	Yes	---	---	---	---	---	---	---	2.25	4.53	4.02	6.71	5.62	5.45	3.51
	No	---	---	---	---	---	---	---	2.12	2.05	2.92	2.36	2.35	2.43	2.37
Trouble hearing	Yes	2.60	8.34	4.68	6.69	4.43	4.69	2.89	4.99	8.03	5.81	8.22	7.36	10.06	10.90
	No	0.84	1.18	1.37	1.25	1.29	1.07	1.38	2.05	2.08	2.88	2.42	2.26	2.29	2.13
Earaches	Yes	1.35	1.64	2.06	2.38	1.53	2.39	2.50	2.55	3.84	3.03	5.26	4.50	3.42	4.20
	No	0.93	1.29	1.85	1.40	1.60	1.16	1.34	2.06	2.37	2.99	2.11	2.41	2.43	2.07
Running ears	Yes	1.63	3.42	4.17	2.27	2.99	2.63	4.22	3.41	4.54	5.03	5.77	4.37	6.27	5.18
	No	0.84	1.12	1.48	1.27	1.50	1.17	1.19	1.99	2.01	2.81	2.36	2.37	2.13	2.12
Problem talking	Yes	1.96	2.71	3.59	3.59	4.89	5.90	5.93	2.67	7.69	4.63	5.44	6.22	8.34	7.70
	No	0.86	1.36	1.40	1.19	1.21	1.11	1.30	2.18	2.15	3.00	2.54	2.35	2.48	2.14
Trouble walking	Yes	3.66	9.68	7.38	11.54	14.34	11.50	12.10	3.86	11.06	11.19	22.23	11.88	10.89	8.28
	No	0.85	1.20	1.50	1.20	1.18	0.98	1.19	2.06	1.97	2.81	2.47	2.37	2.30	2.32
Arm or leg limitation	Yes	4.32	13.14	18.22	16.76	17.21	13.34	13.35	---	---	---	---	---	---	---
	No	0.87	1.19	1.49	1.12	1.25	1.02	1.25	---	---	---	---	---	---	---
Operation	Yes	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	No	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Hospitalized more than 1 day	Yes	---	---	---	---	---	---	---	2.03	2.75	2.83	2.79	2.36	2.83	2.44
	No	---	---	---	---	---	---	---	2.34	1.81	3.19	2.77	3.06	2.85	3.10
Taking medicine regularly	Yes	3.24	5.00	8.05	6.67	6.71	6.72	5.29	3.48	6.06	5.65	8.40	6.15	7.92	5.83
	No	0.88	1.22	1.46	1.17	1.42	1.02	1.33	2.11	1.92	2.94	2.43	2.44	2.28	2.37
Excercise restricted:															
Now	Yes	4.33	14.34	16.99	12.54	11.87	8.17	8.61	4.06	11.56	8.25	6.95	8.78	7.40	7.18
Previously but not now	Yes	2.50	8.14	7.78	5.85	5.77	4.92	4.68	2.00	1.98	2.66	2.58	2.41	2.22	2.06

Table 9. Percent of white and Negro children in 1963-65 and youths in 1966-70 with specified parent ratings of present health, by age and sex, with standard errors for totals: United States

Age, sex, and survey	White					Negro				
	Parent's rating of present health					Parent's rating of present health				
	Excellent	Very good	Good	Fair	Poor	Excellent	Very good	Good	Fair	Poor
	Percent									
Children										
Both sexes 6-11 years	---	53.8	41.5	4.3	0.4	---	38.9	52.3	8.4	0.4
Boys 6-11 years	---	53.8	41.4	4.4	0.4	---	38.0	54.8	6.7	0.5
Girls 6-11 years	---	53.8	41.5	4.2	0.5	---	39.9	49.8	10.1	0.2
Both sexes										
6 years	---	53.9	42.2	3.5	0.4	---	39.2	49.0	11.8	0.0
7 years	---	53.8	41.6	4.3	0.3	---	34.3	59.5	5.8	0.4
8 years	---	56.9	38.8	4.0	0.3	---	41.6	50.3	7.0	1.1
9 years	---	52.2	42.6	4.6	0.6	---	36.8	50.8	11.6	0.8
10 years	---	52.3	42.3	4.9	0.5	---	41.6	51.7	6.7	-
11 years	---	53.6	41.4	4.5	0.5	---	40.4	52.4	7.2	-
Youths										
Both sexes 12-17 years	35.2	34.7	26.9	2.9	0.3	19.1	28.6	46.0	6.0	0.3
Boys 12-17 years	36.7	34.8	25.4	2.9	0.2	20.2	31.3	42.9	5.3	0.3
Girls 12-17 years	33.7	34.6	28.5	2.9	0.3	18.0	26.1	48.8	6.7	0.4
Both sexes										
12 years	38.8	31.8	26.9	2.2	0.3	24.3	28.1	44.5	2.7	0.4
13 years	32.8	39.6	24.9	2.4	0.3	18.6	26.4	47.0	6.9	1.1
14 years	37.3	32.1	28.0	2.3	0.3	19.4	25.8	46.7	7.7	0.4
15 years	33.0	33.6	28.6	4.4	0.4	15.8	29.3	48.0	6.9	-
16 years	36.6	36.5	24.3	2.2	0.4	19.2	29.1	46.2	5.5	-
17 years	32.3	34.7	29.0	3.9	0.1	16.2	34.0	43.2	6.6	-
	Standard error									
Children 6-11 years	---	1.23	1.06	0.31	0.06	---	2.38	2.48	1.05	0.33
Boys 6-11 years	---	1.59	1.39	0.34	0.16	---	2.87	2.72	1.18	0.60
Girls 6-11 years	---	1.12	1.01	0.42	0.10	---	2.96	3.01	1.51	0.19
Youths 12-17 years	1.06	0.87	1.33	0.21	0.07	1.65	2.11	2.48	0.84	0.17
Boys 12-17 years	1.08	1.01	1.44	0.31	0.06	2.01	2.42	2.46	0.89	0.18
Girls 12-17 years	1.38	1.19	1.51	0.29	0.12	1.79	2.56	3.38	1.16	0.25

Table 10. Percent of children in 1963-65 and youths in 1966-70 with health a worry to parents, by race, geographic region, annual family income, age, and sex, with standard errors for totals: United States

Age, sex, and survey	Race		Geographic region				Annual family income		
	White	Negro	North-east	Mid-west	South	West	Under $5,000	$5,000-$9,999	$10,000 or more
Children	Percent whose parent considers present health a problem								
Both sexes 6-11 years	18.8	20.6	17.8	19.4	20.7	18.1	21.4	18.2	16.0
Boys 6-11 years	19.2	18.0	18.5	18.2	20.4	19.1	19.7	18.6	18.9
Girls 6-11 years	18.4	23.3	17.2	20.5	21.0	17.1	22.9	17.9	12.6
Both sexes									
6 years	17.1	22.8	21.0	16.0	19.0	16.0	19.2	17.0	17.4
7 years	18.0	16.4	15.5	18.0	16.6	20.9	21.6	16.9	13.4
8 years	17.5	16.8	14.9	19.0	17.1	18.0	19.7	15.4	17.1
9 years	21.4	22.6	20.8	20.4	25.0	19.5	21.3	22.5	17.5
10 years	19.9	23.2	16.2	21.6	24.8	17.7	25.3	17.5	15.8
11 years	19.2	22.3	18.3	21.0	21.6	17.0	21.2	20.4	14.4
Youths									
Both sexes 12-17 years	14.0	18.3	13.2	12.8	18.2	14.4	19.3	14.4	10.8
Boys 12-17 years	14.4	16.2	13.0	13.3	17.0	15.2	18.3	14.7	11.0
Girls 12-17 years	13.7	20.3	13.3	12.3	19.5	13.6	20.0	14.0	10.6
Both sexes									
12 years	11.9	14.8	9.3	11.0	17.7	12.1	18.7	13.9	6.3
13 years	13.2	17.8	10.7	12.3	19.1	13.6	16.5	11.6	13.0
14 years	14.6	22.7	15.3	13.4	19.7	14.4	20.6	17.2	10.7
15 years	16.4	18.0	16.1	14.8	19.6	15.5	20.1	16.0	13.4
16 years	12.5	14.2	12.2	12.3	13.2	13.0	16.1	12.1	9.0
17 years	15.9	22.5	16.2	13.5	19.9	18.3	23.6	15.7	12.7
	Standard error								
Children 6-11 years	0.70	2.14	0.83	1.35	1.19	1.04	---	---	---
Boys 6-11 years	0.89	2.34	1.39	1.17	1.19	2.00	---	---	---
Girls 6-11 years	0.70	2.32	1.58	1.67	1.31	1.50	---	---	---
Youths 12-17 years	0.59	1.32	0.75	0.65	1.17	1.70	1.27	1.18	0.99
Boys 12-17 years	0.70	2.59	1.18	1.01	1.06	2.51	2.02	1.53	1.18
Girls 12-17 years	0.90	2.04	0.85	1.56	1.59	1.23	1.35	1.42	1.16

Table 11. Percent of children in 1963-65 and youths in 1966-70 with significant abnormal findings on survey examination, by race, geographic region, annual family income, age, and sex, with standard errors for totals: United States

Age, sex, and survey	Race		Geographic region				Annual family income		
	White	Negro	North-east	Mid-west	South	West	Under $5,000	$5,000-$9,999	$10,000 or more
Children	Percent abnormal on examination								
Both sexes 6-11 years	10.8	13.8	12.1	13.7	12.2	6.8	12.6	10.8	9.1
Boys 6-11 years	12.0	13.8	14.1	14.0	13.2	7.7	13.8	11.6	9.9
Girls 6-11 years	9.7	13.8	10.1	13.3	11.1	5.7	11.5	9.9	8.2
Both sexes									
6 years	10.5	12.9	10.3	11.6	14.6	7.2	10.6	10.9	10.6
7 years	11.2	17.3	14.8	13.3	13.4	6.3	13.3	11.9	9.4
8 years	11.2	11.9	10.8	12.5	13.6	8.4	11.6	11.3	8.8
9 years	9.2	15.0	12.4	11.8	9.1	6.1	12.1	8.9	8.0
10 years	10.1	10.9	10.1	15.1	8.0	6.5	12.3	9.4	8.5
11 years	21.9	14.7	14.2	17.6	14.2	5.9	16.4	12.3	9.3
Youths									
Both sexes 12-17 years	20.8	29.1	17.8	19.6	29.8	20.4	28.3	21.5	16.5
Boys 12-17 years	22.0	30.0	18.5	20.3	32.3	21.2	28.6	23.3	17.2
Girls 12-17 years	19.5	28.3	17.1	18.9	27.1	19.6	28.3	19.6	15.9
Both sexes									
12 years	18.2	23.7	12.8	15.2	30.2	19.2	25.7	17.9	15.4
13 years	19.7	29.3	17.5	20.1	29.3	17.5	27.2	21.0	14.2
14 years	21.9	30.7	17.8	21.0	33.8	19.8	30.6	24.4	15.0
15 years	20.9	32.0	18.7	20.7	28.8	20.5	30.6	20.3	16.4
16 years	21.2	28.0	20.2	20.2	29.1	19.0	25.3	23.7	18.6
17 years	22.9	31.8	21.3	20.8	27.0	26.8	30.9	22.4	20.0
	Standard error								
Children 6-11 years	0.95	1.12	1.23	2.09	0.82	2.04	1.55	1.54	1.49
Boys 6-11 years	1.05	1.96	1.23	2.44	1.06	2.14	2.02	1.47	2.30
Girls 6-11 years	1.02	1.78	1.33	1.96	1.49	2.17	1.66	1.99	2.12
Youths 12-17 years	2.03	5.06	1.85	4.99	5.65	2.83	5.60	2.76	2.78
Boys 12-17 years	2.21	6.34	1.99	5.34	5.94	3.98	5.95	3.12	2.92
Girls 12-17 years	2.03	4.47	2.01	4.85	5.70	2.51	6.07	2.93	3.48

Table 12. Percent of children in 1963-65 and youths in 1966-70 with specified parent ratings of present health, by geographic region, age, and sex, with standard errors for totals: United States

Age, sex, and survey	Northeast					Midwest				
	Parent's rating of present health					Parent's rating of present health				
	Excellent	Very good	Good	Fair	Poor	Excellent	Very good	Good	Fair	Poor
Children	Percent									
Both sexes 6-11 years	---	57.6	38.3	3.9	0.2	---	56.1	40.2	3.6	0.1
Boys 6-11 years	---	57.5	37.8	4.6	0.1	---	57.0	39.8	3.1	0.1
Girls 6-11 years	---	57.8	38.7	3.2	0.3	---	55.4	40.5	4.1	0.0
Both sexes										
6 years	---	56.5	40.4	3.1	0.0	---	56.1	40.1	3.8	0.0
7 years	---	58.9	36.7	4.4	0.0	---	57.7	40.7	1.6	0.0
8 years	---	60.0	35.2	4.2	0.6	---	61.4	34.8	3.8	0.0
9 years	---	58.3	37.8	3.6	0.3	---	55.3	40.2	4.5	0.0
10 years	---	55.5	39.0	5.5	0.0	---	54.0	42.0	3.6	0.4
11 years	---	55.9	41.1	2.6	0.4	---	52.5	43.0	4.5	0.0
Youths										
Both sexes 12-17 years	38.5	34.3	24.7	2.3	0.2	36.8	35.4	25.6	2.1	0.1
Boys 12-17 years	40.4	33.4	24.0	2.0	0.2	36.8	36.9	24.0	2.2	0.1
Girls 12-17 years	36.7	35.1	25.4	2.6	0.2	37.0	33.8	27.1	2.0	0.1
Both sexes										
12 years	41.2	33.7	22.4	2.4	0.3	42.8	30.5	25.0	1.7	0.0
13 years	33.0	39.2	25.4	2.4	0.0	34.5	38.3	25.2	1.8	0.2
14 years	41.1	32.8	24.3	0.9	0.9	36.4	33.0	29.7	0.9	0.0
15 years	38.1	31.6	26.4	3.9	0.0	35.8	36.6	24.8	2.6	0.2
16 years	41.8	35.7	20.9	1.6	0.0	35.8	37.4	24.3	2.5	0.0
17 years	36.3	32.0	29.2	2.5	0.0	35.2	37.2	24.4	3.2	0.0
	Standard error									
Children 6-11 years	---	0.90	0.53	0.39	0.13	---	1.56	1.77	1.02	0.06
Boys 6-11 years	---	1.17	1.33	0.68	0.10	---	2.81	2.09	0.82	0.13
Girls 6-11 years	---	1.42	0.90	0.71	0.18	---	2.73	2.14	1.36	-
Youths 12-17 years	1.51	1.34	0.93	0.51	0.18	1.74	2.36	2.86	0.50	0.05
Boys 12-17 years	1.86	2.27	1.06	0.68	0.14	2.34	1.83	3.51	0.48	0.08
Girls 12-17 years	1.90	2.12	2.17	0.70	0.26	2.29	3.06	2.89	0.81	0.07

Table 12. Percent of children in 1963-65 and youths in 1966-70 with specified parent ratings of present health, by geographic region, age, and sex, with standard errors for totals: United States—Con.

Age, sex, and survey	South					West				
	Parent's rating of present health					Parent's rating of present health				
	Excellent	Very good	Good	Fair	Poor	Excellent	Very good	Good	Fair	Poor
	Percent									
Children										
Both sexes 6-11 years	---	40.7	49.8	8.2	1.3	---	52.0	43.7	4.1	0.2
Boys 6-11 years	---	38.9	52.2	7.5	1.4	---	52.4	43.2	4.2	0.2
Girls 6-11 years	---	42.6	47.2	9.0	1.2	---	51.4	44.3	4.0	0.3
Both sexes										
6 years	---	40.6	49.8	8.6	1.0	---	53.6	42.3	3.7	0.4
7 years	---	37.9	53.3	7.8	1.0	---	48.3	46.0	5.2	0.5
8 years	---	42.6	51.1	5.6	0.7	---	53.5	41.7	4.4	0.4
9 years	---	36.0	50.6	11.4	2.0	---	50.7	46.4	2.7	0.2
10 years	---	40.7	50.6	7.3	1.4	---	52.6	42.7	4.7	-
11 years	---	47.0	42.9	8.5	1.6	---	52.2	43.9	3.9	-
Youths										
Both sexes 12-17 years	24.4	31.7	37.4	5.8	0.7	31.8	34.0	30.6	3.3	0.3
Boys 12-17 years	27.0	30.9	35.9	5.6	0.6	33.6	35.7	27.3	3.2	0.2
Girls 12-17 years	21.8	32.4	39.0	6.0	0.8	30.0	32.4	33.9	3.4	0.3
Both sexes										
12 years	25.6	28.7	41.2	3.7	0.8	35.5	32.4	30.2	1.6	0.3
13 years	26.9	32.5	33.3	6.3	1.0	27.5	40.8	29.4	2.0	0.3
14 years	24.4	32.3	35.1	7.7	0.5	37.8	26.7	32.7	2.8	-
15 years	21.0	33.1	39.2	6.7	-	29.0	30.4	33.6	6.0	1.0
16 years	25.8	31.8	37.0	3.9	1.5	34.4	37.2	26.0	2.4	-
17 years	22.9	31.6	39.1	6.2	0.2	26.2	37.3	31.6	4.9	-
	Standard error									
Children 6-11 years	---	2.11	1.63	0.63	0.27	---	3.17	2.87	0.54	0.10
Boys 6-11 years	---	2.19	1.66	0.63	0.69	---	3.96	3.42	0.72	0.08
Girls 6-11 years	---	2.44	1.95	0.79	0.31	---	2.47	2.74	0.94	0.22
Youths 12-17 years	1.06	1.67	1.92	0.73	0.14	2.97	1.74	3.51	0.33	0.16
Boys 12-17 years	0.89	1.92	1.65	0.86	0.10	3.45	2.46	4.27	0.49	0.14
Girls 12-17 years	1.77	1.80	2.65	0.75	0.27	2.83	1.70	3.04	0.55	0.26

Table 13. Percent of children in 1963-65 and youths in 1966-70 with specified parent ratings of present health, by annual family income, age, and sex, with standard errors for totals: United States

Age, sex, and survey	Annual family income under $5,000					Annual family income of $5,000-$9,999					Annual family income of $10,000 or more				
	Parent's rating of present health					Parent's rating of present health					Parent's rating of present health				
	Excellent	Very good	Good	Fair	Poor	Excellent	Very good	Good	Fair	Poor	Excellent	Very good	Good	Fair	Poor
	Percent														
Children															
Both sexes 6-11 years	---	40.1	51.2	7.8	0.9	---	54.0	42.0	3.8	0.2	---	69.7	28.4	1.8	0.1
Boys 6-11 years	---	38.9	52.3	7.8	1.0	---	55.3	40.8	3.7	0.2	---	67.2	31.0	1.7	0.1
Girls 6-11 years	---	41.3	50.0	7.8	0.9	---	52.7	43.2	4.0	0.1	---	72.4	25.4	2.0	0.2
Both sexes															
6 years	---	40.8	51.6	6.8	0.8	---	51.3	44.4	4.3	-	---	73.6	24.5	1.9	-
7 years	---	39.1	52.2	8.1	0.6	---	56.6	40.4	2.7	0.2	---	61.4	36.7	1.9	-
8 years	---	41.4	51.4	6.5	0.7	---	57.6	38.3	4.1	0.2	---	74.1	23.1	2.4	0.4
9 years	---	39.0	51.3	8.6	1.1	---	50.9	43.9	4.9	0.3	---	72.4	25.6	1.6	0.4
10 years	---	39.7	50.9	8.5	0.9	---	54.2	42.2	3.3	0.3	---	65.5	32.3	2.2	-
11 years	---	40.6	49.6	8.4	1.4	---	53.2	43.0	3.8	-	---	69.8	29.3	0.9	-
Youths															
Both sexes 12-17 years	20.4	30.1	41.3	7.2	1.0	32.1	36.6	28.7	2.5	0.1	45.6	34.4	19.0	1.0	-
Boys 12-17 years	22.5	30.0	39.9	6.9	0.7	33.2	37.4	26.8	2.4	0.2	47.0	34.7	17.2	1.1	-
Girls 12-17 years	18.4	30.2	42.7	7.4	1.3	30.9	35.8	30.7	2.6	0.0	44.1	34.1	20.8	1.0	-
Both sexes															
12 years	24.1	26.0	45.1	3.6	1.2	36.2	35.4	24.9	3.4	0.1	49.8	30.8	19.2	0.2	-
13 years	15.5	35.4	41.0	7.0	1.1	35.4	36.4	26.5	1.5	0.2	41.7	40.4	17.1	0.8	-
14 years	21.3	28.2	41.2	8.5	0.8	31.0	33.6	33.2	1.9	0.3	49.4	33.1	17.0	0.5	-
15 years	17.3	28.5	44.4	8.6	1.2	30.8	36.2	28.9	4.1	-	44.3	33.8	20.2	1.7	-
16 years	25.9	32.0	35.2	5.5	1.4	30.5	38.8	28.9	1.8	-	44.8	35.7	18.0	1.5	-
17 years	19.2	30.6	40.2	10.0	-	27.4	39.6	30.2	2.6	0.2	42.8	32.8	22.8	1.6	-
	Standard error														
Children 6-11 years	---	1.30	1.08	0.57	0.18	---	1.83	1.62	0.41	0.06	---	1.60	1.45	0.33	0.14
Boys 6-11 years	---	1.53	1.24	0.58	0.48	---	2.14	2.00	0.42	0.10	---	1.57	1.40	0.45	0.12
Girls 6-11 years	---	1.49	1.36	0.71	0.21	---	1.99	1.83	0.67	0.07	---	2.13	2.03	0.45	0.15
Youths 12-17 years	1.15	1.66	1.79	0.68	0.22	1.50	0.95	1.38	0.35	0.07	0.98	1.31	1.41	0.23	-
Boys 12-17 years	1.48	2.09	2.27	1.04	0.32	1.55	1.19	2.09	0.45	0.13	1.40	1.49	1.46	0.32	-
Girls 12-17 years	1.54	1.86	1.92	1.01	0.40	2.06	1.55	1.46	0.53	0.05	1.26	1.83	1.80	0.28	-

Table 14. Prevalence rates of children 6-11 years in 1963-65 and youths 12-17 years in 1966-70 with a medical history of selected illnesses or other physical conditions, operations, hospitalization, or exercise restriction, by race, geographic region, and annual family income, with standard errors for totals: United States

Medical history item	White		Negro	
	Children	Youths	Children	Youths
	Prevalence of condition per 100			
Chickenpox	---	86.4	---	70.2
Measles	85.9	92.8	85.9	91.1
Mumps	49.9	64.8	41.5	63.8
Scarlet fever	4.3	5.5	0.9	1.3
Whooping cough	7.7	12.2	20.0	29.4
Broken bones	8.4	18.5	3.8	9.4
Knocked unconscious	3.5	9.3	3.2	6.5
Scars from burns	3.7	---	9.7	---
Other accidents	4.2	11.9	4.4	14.4
Asthma	5.2	5.8	5.5	7.0
Hay fever	4.8	9.4	2.9	7.6
Other allergies	12.2	14.6	6.4	6.6
Kidney condition	4.1	4.8	2.8	3.0
Heart condition	3.9	5.0	2.6	4.1
Sore throat	11.9	---	10.3	---
Colds	20.5	---	24.0	---
Coughs	11.0	---	9.3	---
Bronchitis	15.7	---	9.5	---
Chest colds	6.4	---	5.1	---
Pneumonia	---	11.4	---	9.8
Convulsions or fits	3.4	3.3	2.6	2.2
Eye trouble	13.6	6.0	16.0	11.8
Trouble hearing	4.1	3.5	5.1	4.7
Earaches	28.1	15.3	18.4	13.8
Running ear	12.6	10.0	7.5	5.3
Problem talking	7.6	3.5	13.8	9.4
Trouble walking	2.3	1.8	2.4	3.2
Arm or leg limitation	1.2	1.8	1.8	1.6
Operations	33.8	42.5	12.4	17.9
Hospitalized more than 1 day	20.2	53.1	15.9	33.3
Exercise restricted:				
Ever	24.7	11.6	44.7	8.0
Now	5.4	4.6	5.0	5.4

Table 14. Prevalence rates of children 6-11 years in 1963-65 and youths 12-17 years in 1966-70 with a medical history of selected illnesses or other physical conditions, operations, hospitalization, or exercise restriction, by race, geographic region, and annual family income, with standard errors for totals: United States—Con.

Geographic region								Annual family income					
Northeast		Midwest		South		West		Under $5,000		$5,000-$9,999		$10,000 or more	
Children	Youths	Children	Youths	Children	Youths	Children	Youths	Children	Youths	Children	Youths	Children	Youths
Prevalence of condition per 100													
---	85.6	---	88.8	---	78.6	---	82.7	---	73.5	---	86.7	---	90.7
83.7	91.6	89.5	93.2	84.6	92.7	84.7	92.4	86.4	91.3	87.6	93.3	81.5	92.8
50.2	62.6	50.2	66.2	46.5	65.1	48.0	64.1	44.1	63.3	51.1	65.5	53.2	65.1
2.7	4.5	5.1	5.4	4.1	5.4	3.2	4.4	3.3	4.3	4.3	4.8	4.4	6.1
5.8	13.9	5.4	10.3	18.4	23.3	8.4	11.4	17.8	26.2	4.6	11.8	2.5	8.2
6.8	16.4	8.6	18.3	6.7	14.4	8.8	19.5	6.2	13.3	8.5	18.1	10.1	18.9
3.0	7.8	2.8	8.6	4.0	9.9	4.0	9.2	3.7	7.5	3.2	8.7	3.9	9.4
3.6	---	3.4	---	6.9	---	4.5	---	6.4	---	3.1	---	4.1	---
4.2	11.2	3.4	10.8	4.9	14.0	4.4	13.2	4.1	12.4	3.9	11.9	5.0	11.6
4.5	4.9	4.2	4.9	7.8	8.4	4.7	5.8	5.5	6.1	5.4	5.8	4.9	6.2
4.1	8.5	3.5	8.6	3.2	6.8	7.6	12.8	2.9	7.3	5.5	7.9	5.8	12.1
11.0	12.0	12.0	14.2	8.7	11.8	13.9	15.7	7.7	8.2	13.3	12.7	15.2	18.9
2.4	2.8	4.0	4.5	5.1	7.1	3.9	3.8	4.9	6.7	3.7	4.4	2.4	3.2
4.4	6.0	3.5	4.2	3.4	4.9	3.5	4.8	3.5	5.3	3.7	4.8	3.9	4.8
10.0	---	11.7	---	15.4	---	9.6	---	14.5	---	11.1	---	7.5	---
20.7	---	19.3	---	25.8	---	18.5	---	25.2	---	19.5	---	14.7	---
10.3	---	10.8	---	10.7	---	11.0	---	10.9	---	11.3	---	9.2	---
15.2	---	14.8	---	14.5	---	14.9	---	11.1	---	17.3	---	17.8	---
5.9	---	6.8	---	7.0	---	5.2	---	6.3	---	6.5	---	5.7	---
---	9.4	---	13.9	---	11.1	---	9.8	---	11.5	---	10.6	---	11.8
3.6	3.0	3.0	2.9	3.5	3.4	3.2	3.2	3.5	2.7	3.4	3.5	3.4	2.9
15.3	7.2	13.9	5.7	14.5	7.7	12.4	7.0	13.9	9.0	13.5	5.9	15.5	5.9
3.2	2.4	4.3	3.2	6.3	5.6	3.2	3.5	5.2	5.2	4.3	3.6	2.5	2.0
25.2	13.2	30.3	14.6	27.7	16.9	23.2	15.6	27.4	17.5	27.9	15.7	22.6	12.9
11.0	8.5	13.2	11.2	11.3	8.6	11.8	8.6	12.2	10.0	12.2	9.4	10.9	8.6
7.8	3.6	8.6	3.7	8.9	5.5	8.2	4.4	10.1	6.3	7.2	4.0	7.6	2.7
2.6	1.6	2.0	2.2	2.4	2.4	2.3	1.8	2.6	2.9	2.3	1.9	2.0	1.2
1.2	2.1	1.2	1.1	1.5	1.8	1.2	2.1	1.9	1.6	0.9	1.8	0.4	1.6
38.1	44.6	35.6	41.0	18.3	28.6	30.7	42.3	10.4	25.7	27.1	42.2	24.6	46.3
18.5	53.8	22.8	51.9	17.5	43.8	18.4	51.9	18.4	39.6	20.9	52.0	18.9	56.0
34.1	9.8	22.3	10.5	35.5	10.4	21.4	13.6	33.8	10.7	25.7	11.3	20.1	11.7
4.3	3.3	6.6	4.6	5.5	5.0	4.9	5.5	5.4	5.8	5.6	4.9	5.4	3.4

Table 14. Prevalence rates of children 6-11 years in 1963-65 and youths 12-17 years in 1966-70 with a medical history of selected illnesses or other physical conditions, operations, hospitalization, or exercise restriction, by race, geographic region, and annual family income, with standard errors for totals: United States—Con.

Medical history item	White		Negro	
	Children	Youths	Children	Youths
	Standard error			
Chickenpox	---	0.99	---	4.16
Measles	0.95	0.78	1.40	0.87
Mumps	1.58	0.97	2.43	1.45
Scarlet fever	0.48	0.53	0.33	0.44
Whooping cough	0.92	0.70	3.18	2.16
Broken bones	0.39	0.49	0.53	0.74
Knocked unconscious	0.26	0.46	0.54	0.64
Scars from burns	0.20	---	1.10	---
Other accidents	0.27	0.66	0.63	2.04
Asthma	0.40	0.40	0.62	0.70
Hay fever	0.41	0.70	0.64	1.10
Other allergies	0.59	0.87	0.79	1.23
Kidney condition	0.36	0.51	0.70	0.37
Heart condition	0.26	0.39	0.70	0.77
Sore throat	0.58	---	1.19	---
Colds	0.71	---	1.69	---
Coughs	0.40	---	1.05	---
Bronchitis	0.78	---	1.54	---
Chest colds	0.47	---	0.77	---
Pneumonia	---	0.61	---	0.97
Convulsions or fits	0.17	0.25	0.53	0.65
Eye trouble	0.58	0.51	1.16	1.50
Trouble hearing	0.36	0.32	0.83	0.47
Earaches	0.95	0.84	1.36	1.99
Running ear	0.53	0.62	0.87	0.71
Problem talking	0.39	0.24	1.49	0.59
Trouble walking	0.16	0.20	0.52	0.46
Arm or leg limitation	0.12	0.25	0.27	0.37
Operations	0.52	1.16	1.13	1.57
Hospitalized more than 1 day	1.05	1.36	2.07	1.04
Exercise restricted:				
Ever	0.36	0.58	0.56	1.04
Now	1.85	0.27	13.31	1.08

Table 14. Prevalence rates of children 6-11 years in 1963-65 and youths 12-17 years in 1966-70 with a medical history of selected illnesses or other physical conditions, operations, hospitalization, or exercise restriction, by race, geographic region, and annual family income, with standard errors for totals: United States—Con.

Geographic region								Annual family income					
Northeast		Midwest		South		West		Under $5,000		$5,000-$9,999		$10,000 or more	
Children	Youths	Children	Youths	Children	Youths	Children	Youths	Children	Youths	Children	Youths	Children	Youths
Standard error													
---	0.68	---	1.15	---	3.37	---	2.26	---	4.35	---	1.05	---	1.84
1.39	1.38	0.66	1.28	1.85	0.89	2.34	1.32	2.61	1.58	1.31	1.30	3.83	2.23
2.38	0.56	1.74	1.16	1.52	2.44	4.73	3.06	2.78	4.13	1.68	2.34	3.41	2.15
0.32	1.31	0.84	1.03	1.28	2.83	0.37	0.53	1.41	1.10	0.82	0.80	1.06	1.26
0.67	0.69	0.59	1.26	3.87	0.82	1.76	0.81	4.17	3.01	0.81	1.15	0.75	1.46
0.75	1.14	0.98	0.87	0.47	0.87	1.00	1.69	1.06	1.26	0.77	1.14	1.18	1.94
0.32	0.72	0.60	0.64	0.41	0.57	0.70	1.24	0.53	1.02	0.44	1.02	1.33	1.91
0.60	---	0.29	---	0.58	---	0.56	---	1.07	---	0.43	---	1.10	---
0.58	1.35	0.55	1.22	0.62	1.47	0.69	1.69	0.62	2.13	0.61	1.48	1.89	2.11
0.55	0.62	0.61	0.65	0.54	0.76	0.73	0.49	0.76	1.09	0.86	0.87	1.34	1.07
0.58	0.97	0.37	0.96	0.41	0.71	1.38	2.08	0.58	1.11	0.72	0.98	1.34	1.81
1.24	0.92	0.45	1.30	1.02	1.65	1.62	1.58	1.17	1.02	0.89	1.12	2.93	2.11
0.46	0.31	0.75	0.63	0.34	1.32	1.00	1.03	0.72	2.10	0.66	0.71	1.42	0.85
0.64	0.69	0.47	0.47	0.41	0.77	0.58	0.91	0.67	1.14	0.38	0.60	0.74	1.17
0.73	---	0.77	---	1.13	---	1.05	---	1.36	---	1.07	---	1.42	---
0.87	---	1.51	---	1.35	---	1.71	---	1.67	---	1.22	---	2.50	---
0.78	---	1.30	---	1.00	---	0.86	---	1.17	---	1.07	---	2.35	---
2.08	---	0.78	---	1.17	---	1.73	---	1.35	---	1.46	---	2.43	---
0.56	---	0.60	---	0.62	---	0.92	---	1.04	---	0.87	---	2.26	---
---	1.07	---	1.69	---	0.84	---	1.48	---	0.92	---	1.08	---	1.26
0.37	0.42	0.52	0.65	0.40	0.40	0.25	0.29	0.32	0.55	0.45	0.54	0.48	0.70
1.16	0.72	1.07	1.43	0.80	0.86	1.09	1.44	1.21	1.19	0.77	0.88	1.36	1.50
0.58	0.30	0.71	0.46	0.91	0.56	0.43	0.57	1.16	0.83	0.67	0.65	1.15	0.54
1.57	1.70	1.07	2.30	1.26	1.46	1.37	0.85	1.59	1.75	1.75	1.20	2.49	2.31
0.54	0.97	1.11	1.35	1.33	1.01	0.61	0.97	1.35	1.49	0.99	1.11	2.53	1.29
0.65	0.41	0.78	0.21	1.17	0.43	0.74	0.78	1.06	0.83	0.74	0.53	1.75	0.66
0.18	0.35	0.34	0.39	0.46	0.32	0.34	0.36	0.44	0.64	0.37	0.47	0.76	0.31
0.25	0.38	0.32	0.26	0.13	0.57	0.22	0.81	0.37	0.55	0.17	0.50	0.51	0.56
0.58	2.22	0.62	1.08	1.24	2.30	1.17	3.38	1.23	1.74	1.07	1.58	2.58	2.41
1.23	1.98	2.29	2.46	2.24	2.43	1.78	3.44	1.84	2.39	1.40	1.51	2.36	2.10
0.42	0.74	0.77	1.03	0.35	0.89	0.94	1.89	0.89	1.19	0.60	1.00	1.21	1.27
5.75	0.43	3.09	0.47	5.58	0.40	2.05	0.57	6.90	0.97	4.95	0.66	11.55	0.55

APPENDIX I

STATISTICAL NOTES

The Survey Design

The sample designs for the first three programs (Cycles I-III) of the Health Examination Survey have been essentially similar in that each has been a multistage, stratified probability sample of clusters of households in land-based segments. The successive elements for this sample design are primary sampling unit, census enumeration district, segment (a cluster of households), eligible person, and finally the sample person.

The same 40 sample areas and the same segments were utilized in the design of both Cycles II and III. Previous reports describe in detail the sample design used for Cycle II and in addition discuss the problems of and considerations given to other types of sampling frames, cluster versus random sampling, and whether or not to control the selection of siblings.[4,6]

Requirements and limitations placed on the design for both Cycles II and III were that:

The target population be defined as the civilian noninstitutional population of the United States, including Alaska and Hawaii, of ages 6-11 years for Cycle II and 12-17 years for Cycle III, with the special exclusion of children residing on reservation lands of the American Indians. The latter exclusion was due to operational problems encountered on these lands in Cycle I.

The time period of data collection be limited to about 3 years for each cycle and the length of the individual examination within the specially constructed mobile examination center be between 2 and 3 hours.

Ancillary data be collected on specially designed household, medical history, and school questionnaires and from birth certificate copies.

Examination objectives be primarily related to factors of physical and intellectual growth and development.

The sample be sufficiently large to yield reliable findings within broad geographic regions and population density groups as well as age, sex, and limited socioeconomic groups for the total sample.

The sample was drawn jointly with the U.S. Bureau of the Census, starting with the 1960 decennial census list of addresses and the nearly 1,900 primary sampling units (PSU's) into which the entire United States was divided. Each PSU is either a standard metropolitan statistical area, a county, or a group of two or three contiguous counties. These PSU's were grouped into 40 strata, each stratum having an average size of about 4.5 million persons, in such a manner as to maximize the degree of homogeneity within strata with regard to the population size of the PSU's, degree of urbanization, geographic proximity, and degree of industrialization. The 40 strata were than classified into four broad geographic regions of 10 strata each and then within each region cross-classified by four population density classes and classes of rate of population change from 1950 to 1960. Using a modified Goodman-Kish controlled-selection technique, one PSU was drawn from each of the 40 strata.

Further stages of sampling within PSU's required first the selection of census enumeration districts (ED's). The ED's are small, well-defined areas of about 250 housing units into which the entire Nation was divided for the 1960 population census. Each ED was assigned a "measure of size" equal to the rounded whole number resulting from a "division by nine" of the number of children aged 5-9 in the ED at the time of the 1960 census. A sample of 20 ED's in the sample PSU were selected by systematic sampling with each ED having a probability of selection proportional to the population of children 5-9 years at the time of the 1960 census date. A further random selection by size of segments (smaller clusters of housing units) within each ED was then made.

Because of the 3-year time interval between Cycle II and Cycle III, the Cycle III frame had to be supplemented for new construction and to compensate for segments where housing was partially or totally demolished to make room for highway construction or urban redevelopment.

Advanced planning for the examinations at the various locations or stands provided for about 17 days of examinations, which limited the number of examinees per location to approximately 200. When the number of eligible persons (children or youths) in the sample

drawn for a particular location exceeded this number, subsampling was done by deleting from the master list of eligible persons (ordered by segment, household order within segment, and age within household) every nth name on the list starting with the yth name, y being a number between 1 and n selected randomly and n being the extent of oversampling in the original draw.

In both Cycles II and III twins who were deleted in the sample selection were also scheduled for examination if time permitted, as were youths deleted from the Cycle III sample who had been examined in Cycle II.

In both Cycle II and Cycle III the sample was selected to contain the correct proportion of children from families having only one eligible child, two eligible children, and so on to be representative of the total target population. However since households were one of the elements in the sample frame, the number of related children or youths in the resultant sample is greater than would come from a design which sampled children 6-11 or 12-17 years without regard to household. The resultant estimated mean measurements or rates should be unbiased, but their sampling variability will be somewhat greater than those from a more costly, time-consuming systematic sample design in which every kth child would be selected.

The total probability sample for Cycle II contained 7,417 children representative of the approximately 24 million children 6-11 years of age in the United States target population at the time of the survey; Cycle III included 7,514 youths similarly representative of the approximately 22.7 million noninstitutionalized youths of 12-17 years in the United States. Each of these two samples contained approximately 1,000 children (or youths) in each single year of age and from 25 different States.

The response rates in Cycles II and III were 96 and 90 percent, respectively, with 7,119 children and 6,768 youths examined out of the total sample. Both groups of examinees were closely representative of their respective samples as well as of the population from which the samples were drawn with respect to age, sex, race, geographic region, population density, and population growth in the area of residence. Hence it appears unlikely that nonresponse could bias the findings appreciably.

Measures used to control the quality of the data from these surveys have been cited previously; [4,5,7] those additional measures specifically related to the particular examinations, tests, or measurements are outlined in the analytic reports describing and presenting the respective initial findings.

Reliability

While measurement processes in the surveys were carefully standardized and closely controlled, the correspondence between the real world and survey results cannot be expected to be exact. Survey data are imperfect for three major reasons: Results are subject to sampling error, the actual conduct of a survey never agrees perfectly with the design, and the measurement processes themselves are inexact even though standardized and controlled.

The first reports on Cycles II [4] and III [5] describe in detail the faithfulness with which the sampling design was carried out.

Data recorded for each sample child and youth are inflated in the estimation process to characterize the larger universe of which the sample child or youth is representative. The weights used in this inflation process are a product of the reciprocal of the probability of selecting the child or youth, an adjustment for nonresponse cases, and a poststratified ratio adjustment which increases precision by bringing survey results into closer alignment with known United States population figures by color and sex within single years of age 6-11 for the children's survey and age 12-17 for the youths' survey.

In Cycles II and III of the Health Examination Survey the samples were the result of three principal stages of selection—the single PSU from each stratum, the 20 segments from each sample PSU, and the sample children and youths from the eligible persons. The probability of selecting an individual child or youth is the product of the probability of selection at each stage.

Since the strata are roughly equal in population size and a nearly equal number of sample children or youths were examined in each of the sample PSU's, the sample design is essentially self-weighting with respect to the target population; that is, each child 6-11 years old and youth 12-17 years had about the same probability of being drawn into the respective samples.

The adjustment upward for nonresponse is intended to minimize the impact of nonresponse on final estimates by imputing to nonrespondents the characteristics of "similar" respondents. Here "similar" respondents were judged to be examined children or youths in a sample PSU having the same age in years and sex as children or youths not examined in that sample PSU.

The poststratified ratio adjustment used in the second and third cycles achieved most of the gains in precision which would have been attained if the sample had been drawn from a population stratified by age, color, and sex and made the final sample estimates of population agree exactly with independent controls prepared by the Bureau of the Census for the U.S. noninstitutionalized population as of August 1, 1964 (approximate midsurvey point for Cycle II) by color and sex for each single year of age 6-11 and similarly as of March 9, 1968 (approximate midsurvey point for Cycle III) for each single year of age 12-17. The weights of every responding sample child and for each sample youth in each of the 24 age, color,

Table I. Extent of missing data on physical examination and selected items in the medical history for children 6-11 years of age in 1963-65 and youths 12-17 years of age in 1966-70 examined in the Health Examination Surveys

Age and sex	Questionnaire item or examination missing		
	Health status	Health a worry	Physical examination
	Number of examinees		
Both sexes 6-11 years	9	38	6
Boys 6-11 years	3	21	2
Girls 6-11 years	6	17	4
6 years	2	8	1
7 years	-	6	1
8 years	1	5	1
9 years	3	5	-
10 years	2	5	1
11 years	1	9	2
Both sexes 12-17 years	43	43	3
Boys 12-17 years	26	27	-
Girls 12-17 years	17	16	3
12 years	5	5	-
13 years	12	12	-
14 years	6	7	-
15 years	7	7	-
16 years	5	5	1
17 years	8	7	2

and sex classes is adjusted upward or downward so that the weighted total within the class equals the independent population control for each survey.

In addition to children or youths not examined at all, there were some whose examination was incomplete in one procedure or another. The extent of missing data for the part of the examination and selected items in the medical history relevant to this report is shown in table I.

No imputation was made for items missing for the examined children and youths. In effect it has been assumed that the distribution of the individual characteristic is similar among those for whom the information was available and those for whom it was not.

Sampling and Measurement Errors

In the present report, reference has been made to efforts to minimize bias and variability of measurement techniques.

The probability design of the survey makes possible the calculation of sampling errors. The sampling error is used here to determine how imprecise the survey test results may be because they come from a sample rather than from the measurements of all elements in the universe.

The estimation of sampling errors for a study of the type of the Health Examination Survey is difficult for at least three reasons: Measurement error and "pure" sampling error are confounded in the data—it is not easy to find a procedure which will either completely include both or treat one or the other separately, the survey design and estimation procedure are complex and accordingly require computationally involved techniques for the calculation of variances, and from the survey are coming thousands of statistics, many for subclasses of the population for which there are a small number of cases. Estimates of sampling error are obtained from the sample data and are themselves subject to sampling error which may be large when the number of cases in a cell is small or even occasionally when the number of cases is substantial.

Estimates of approximate sampling variability for selected statistics used in this report are included in the detailed tables. These estimates have been prepared by a replication technique which yields overall variability through observation of variability among random subsamples of the total sample. The method reflects both "pure" sampling variance and a part of the measurement variance.

In accordance with usual practice, the interval estimate for any statistic may be considered the range within one standard error of the tabulated statistic with 68-percent confidence or the range within two standard errors of the tabulated statistic with 95-percent confidence. The latter is used as the level of significance in this report.

An approximation of the standard error of a difference $d = x - y$ of two statistics x and y is given by the formula $S_d = (S_x^2 + S_y^2)^{1/2}$ where S_x and S_y are the sampling errors, respectively of x and y. Of course, where the two groups or measures are positively or negatively correlated, this will give an overestimate or underestimate, respectively, of the actual standard error.

Small Numbers

In some tables magnitudes are shown for cells for which the sample size is so small that the sampling error may be several times as great as the statistic itself. Obviously in such instances the statistic has no meaning in itself except to indicate that the true quantity is small. Such numbers, if shown, have been included in the belief that they may help to convey an impression of the overall story of the table.

APPENDIX II

RECORDING AND HISTORY FORMS

Child's Medical History—Parent

CONFIDENTIAL – *The National Health Survey is authorized by Public Law 652 of the 84th Congress (70 Stat. 489; 42 U.S.C. 305). All information which would permit identification of the individual will be held strictly confidential, will be used only by persons engaged in and for the purposes of the survey and will not be disclosed or released to others for any other purposes (22 FR 1687).*

FORM APPROVED
BUDGET BUREAU NO. 68-R620-54.6

DEPARTMENT OF
HEALTH, EDUCATION, AND WELFARE
PUBLIC HEALTH SERVICE
NATIONAL HEALTH SURVEY

HES-256

(1-5) _____

CHILD'S MEDICAL HISTORY - Parent

NAME OF CHILD *(Last, First, Middle)* (6-11)	SEGMENT	SERIAL	COL. NO.

NOTE: Please complete this form by checking the correct boxes and/or filling in the blanks where applicable. When you have completed it, keep it until the representative of the Health Examination Survey calls on you within a few days. If there are some questions you do not understand, please complete the others and the person who comes for the form will help you with the ones that were unclear.

(12-14) 1. SEX	2. AGE	3. DATE OF BIRTH *(Month, Day, Year)*
1 ☐ Male 2 ☐ Female		

20. NOW TURNING TO THE PRESENT TIME. HOW WOULD YOU DESCRIBE THE CHILD'S HEALTH NOW?
1 ☐ Very good 2 ☐ Good 3 ☐ Fair 4 ☐ Poor
IF FAIR or POOR, what is the trouble? _____

21. IS THERE ANYTHING ABOUT HIS(HER) HEALTH THAT BOTHERS YOU OR WORRIES YOU NOW?
1 ☐ Yes 2 ☐ No
IF YES, what is the trouble? _____

22. DOES THE CHILD AT PRESENT EVER SUCK HIS(HER) THUMB OR FINGERS, EITHER DURING THE DAY OR AT NIGHT? (40) 1 ☐ Yes 2 ☐ No 3 ☐ Don't know
IF YES, about how often?
1 ☐ Almost every day or night 2 ☐ Just once in a while 3 ☐ Don't know

23. DOES THE CHILD TAKE ANY MEDICINE REGULARLY, NOT COUNTING VITAMINS?
(42) 1 ☐ Yes 2 ☐ No 3 ☐ Don't know
IF YES:
A. What is the medicine for? _____
B. What is the name of the medicine? _____
C. Did a doctor say for him (her) to take it?
(43) 1 ☐ Yes 2 ☐ No 3 ☐ Don't know

Here are a few questions about any accidents or injuries the child may have had from the time he was a baby to today.

25. HAS HE(SHE) EVER BROKEN ANY BONES?
1 ☐ Yes 2 ☐ No 3 ☐ Don't know

26. HAS HE(SHE) EVER BEEN KNOCKED UNCONSCIOUS?
(47) 1 ☐ Yes 2 ☐ No 3 ☐ Don't know
IF DON'T KNOW, do you have any reason to think he(she) may have been? _____

27. HAS HE(SHE) EVER BEEN BURNED SO BADLY THAT IT LEFT A SCAR?
1 ☐ Yes 2 ☐ No 3 ☐ Don't know

28. HAS HE(SHE) EVER HAD ANY OTHER ACCIDENT OR INJURY THAT TROUBLED HIM QUITE A BIT?
1 ☐ Yes 2 ☐ No 3 ☐ Don't know

29. HOW ABOUT OPERATIONS: HAS HE(SHE) HAD HIS(HER) TONSILS TAKEN OUT?
(50) 1 ☐ Yes 2 ☐ No 3 ☐ Don't know

30. HAS HE(SHE) HAD ANY OTHER KIND OF OPERATION?
(51) 1 ☐ Yes 2 ☐ No 3 ☐ Don't know
IF YES, what was the operation and what was it for? _____

31. HAS HE(SHE) EVER BEEN IN THE HOSPITAL FOR ANY OTHER SICKNESS OR TROUBLE?
1 ☐ Yes 2 ☐ No 3 ☐ Don't know
IF YES, what was the sickness or trouble? _____

32. HERE IS A LIST OF DISEASES THAT CHILDREN SOMETIMES HAVE. HAS THIS CHILD EVER HAD:

		If yes, about how old at the time?		
(53)	A. Scarlet fever?	1 ☐ Yes → Age____	2 ☐ No	3 ☐ Don't know
(54)	B. Rheumatic fever?	1 ☐ Yes → Age____	2 ☐ No	3 ☐ Don't know
	C. Polio?	1 ☐ Yes → Age____	2 ☐ No	3 ☐ Don't know
	D. Diphtheria?	1 ☐ Yes → Age____	2 ☐ No	3 ☐ Don't know
	E. Meningitis or sleeping sickness?	1 ☐ Yes → Age____	2 ☐ No	3 ☐ Don't know
	F. Tuberculosis?	1 ☐ Yes → Age____	2 ☐ No	3 ☐ Don't know
	G. Diabetes or sugar diabetes?	1 ☐ Yes → Age____	2 ☐ No	3 ☐ Don't know
	H. Epilepsy?	1 ☐ Yes → Age____	2 ☐ No	3 ☐ Don't know
	I. Chorea or St. Vitus dance?	1 ☐ Yes → Age____	2 ☐ No	3 ☐ Don't know
	J. Cerebral palsey?	1 ☐ Yes → Age____	2 ☐ No	3 ☐ Don't know
(63)	K. Whooping cough?	1 ☐ Yes → Age____	2 ☐ No	3 ☐ Don't know

33. HAS THIS CHILD EVER HAD MEASLES?
(64) 1 ☐ Yes 2 ☐ No 3 ☐ Don't know
IF YES:
A. At what age? _____
B. Was he(she) sick longer than usual?
1 ☐ Yes 2 ☐ No 3 ☐ Don't know
C. Did he(she) have to go to the hospital?
1 ☐ Yes 2 ☐ No 3 ☐ Don't know
D. Did he(she) have a high fever for more than one week?
1 ☐ Yes 2 ☐ No 3 ☐ Don't know
E. Did he(she) seem to be unusually drowsy (sleepy) after the illness?
1 ☐ Yes 2 ☐ No 3 ☐ Don't know

34. HAS THIS CHILD EVER HAD MUMPS?

(69) 1 ☐ Yes 2 ☐ No 3 ☐ Don't know

IF YES:

A. At what age? _____

B. Was he(she) sick longer than usual?
1 ☐ Yes 2 ☐ No 3 ☐ Don't know

C. Did he(she) have to go to the hospital?
1 ☐ Yes 2 ☐ No 3 ☐ Don't know

D. Did he(she) have a high fever for more than one week?
1 ☐ Yes 2 ☐ No 3 ☐ Don't know

E. Did he(she) seem to be unusually drowsy (sleepy) after the illness?

(73) 1 ☐ Yes 2 ☐ No 3 ☐ Don't know (79-80) END CARD 01 (1-5) #

35. HERE ARE SOME OTHER KINDS OF ILLNESSES OR CONDITIONS SOME CHILDREN HAVE. HAS YOUR CHILD EVER HAD.

(8)

A. Asthma?	1 ☐ Yes	2 ☐ No	3 ☐ Don't know
B. Hay fever?	1 ☐ Yes	2 ☐ No	3 ☐ Don't know
C. Any other kinds of allergies?	1 ☐ Yes	2 ☐ No	3 ☐ Don't know
D. Any trouble with his (her) kidneys?	1 ☐ Yes	2 ☐ No	3 ☐ Don't know
E. A heart murmur?	1 ☐ Yes	2 ☐ No	3 ☐ Don't know
F. Anything wrong with his(her) heart?	1 ☐ Yes	2 ☐ No	3 ☐ Don't know
G. A convulsion?	1 ☐ Yes	2 ☐ No	3 ☐ Don't know
H. A fit?	1 ☐ Yes	2 ☐ No	3 ☐ Don't know

36. DOES YOUR CHILD OFTEN HAVE BAD SORE THROATS?

(14) 1 ☐ Yes 2 ☐ No 3 ☐ Don't know

37. IN THE PAST YEAR OR SO HAS HE(SHE) HAD MORE THAN THREE COLDS A YEAR?
1 ☐ Yes 2 ☐ No 3 ☐ Don't know

38. DOES HE(SHE) OFTEN HAVE COUGHS THAT HANG ON?
1 ☐ Yes 2 ☐ No 3 ☐ Don't know

39. HAS A DOCTOR EVER SAID THAT HE(SHE) HAS BRONCHITIS?
1 ☐ Yes 2 ☐ No 3 ☐ Don't know

40. WHEN THE CHILD HAS A COUGH OR COLD DOES IT GO TO HIS(HER) CHEST?
1 ☐ Often 2 ☐ Sometimes 3 ☐ Almost never 4 ☐ Don't know

41. HERE ARE SOME QUESTIONS ABOUT YOUR CHILD'S EYES.

A. Has he(she) ever had crossed eyes?

(19) 1 ☐ Yes 2 ☐ No 3 ☐ Don't know

B. Has he(she) ever had an operation on his(her) eyes?

(20) 1 ☐ Yes 2 ☐ No 3 ☐ Don't know

IF YES, what was it for? _____

C. Has he(she) ever had other trouble with his(her) eyes?
1 ☐ Yes 2 ☐ No 3 ☐ Don't know

IF YES, what kind of trouble? _____

D. Does he(she) wear either glasses or contact lenses?
1 ☐ Yes 2 ☐ No 3 ☐ Don't know

42. IF HE(SHE) DOES NOT WEAR GLASSES:

A. Does he(she) ever have trouble reading or doing fine work?

(23) 1 ☐ Yes 2 ☐ No 3 ☐ Don't know

B. Do his(her) eyes or eyelids ever swell up or get red?
1 ☐ Yes 2 ☐ No 3 ☐ Don't know

C. Does he(she) ever have styes, infections, or 'matter' in his(her) eyes?
1 ☐ Yes 2 ☐ No 3 ☐ Don't know

D. Do his(her) eyes often water?
1 ☐ Yes 2 ☐ No 3 ☐ Don't know

E. Are his(her) eyes often bloodshot?
1 ☐ Yes 2 ☐ No 3 ☐ Don't know

F. Does he(she) ever say that his(her) eyes burn or itch?
1 ☐ Yes 2 ☐ No 3 ☐ Don't know

G. Does bright light bother his(her) eyes?

(29) 1 ☐ Yes 2 ☐ No 3 ☐ Don't know

H. Does he(she) ever see double or see things blurred?

(30) 1 ☐ Yes 2 ☐ No 3 ☐ Don't know

I. Have you seen him(her) often rub his(her) eyes or blink when he(she) is reading?

1 ☐ Yes 2 ☐ No 3 ☐ Don't know

J. Does he(she) sometimes close or cover one eye or hold his head on one side when he(she) reads or watches T.V.?

1 ☐ Yes 2 ☐ No 3 ☐ Don't know

43. DOES YOUR CHILD HAVE ANY TROUBLE HEARING?

1 ☐ Yes 2 ☐ No 3 ☐ Don't know

44. DOES HE(SHE) EVER HAVE EARACHES?

(34) 1 ☐ Yes 2 ☐ No 3 ☐ Don't know

45. HAS YOUR CHILD EVER HAD ANY INJURY OR DAMAGE TO HIS(HER) EARS?

(35) 1 ☐ Yes 2 ☐ No 3 ☐ Don't know

IF YES, in what way was his(her) ear injured? _____

46. HAS HE(SHE) EVER HAD HIS(HER) EAR DRUMS OPENED OR LANCED?

1 ☐ Yes 2 ☐ No 3 ☐ Don't know

IF YES, how many times?

1 ☐ Once only 2 ☐ Twice only 3 ☐ Three times or more

47. HAS HE(SHE) EVER HAD ANY OTHER KIND OF OPERATION ON THE EARS?

(38) 1 ☐ Yes 2 ☐ No 3 ☐ Don't know

IF YES, what was it for? _____

48. HAS THIS CHILD EVER HAD A RUNNING EAR OR ANY DISCHARGE FROM HIS EARS (Not counting wax in the

(39) ears)? 1 ☐ Yes 2 ☐ No 3 ☐ Don't know

IF YES:

A. How often has he(she) had this?

1 ☐ Once only 2 ☐ Twice only 3 ☐ Three or more times 4 ☐ Don't know

B. Was this his(her) left ear, right ear, or both ears?

1 ☐ Left 2 ☐ Right 3 ☐ Both 4 ☐ Don't know

49. HAS HE(SHE) EVER HAD ANY OTHER KIND OF TROUBLE WITH HIS(HER) EARS?

1 ☐ Yes 2 ☐ No 3 ☐ Don't know

IF YES, what kind of trouble? _____

50. IS THERE ANY PROBLEM WITH THE WAY HE(SHE) TALKS?

(43) 1 ☐ Yes 2 ☐ No 3 ☐ Don't know

IF YES, what is the problem?

1 ☐ Stammering or stuttering? 2 ☐ Lisping? 3 ☐ Hard to understand?

4 ☐ Something else? What is that? _____

51. DOES THIS CHILD HAVE A LIMP OR ANY TROUBLE WHEN HE(SHE) WALKS?

1 ☐ Yes 2 ☐ No 3 ☐ Don't know

IF YES, how much trouble and what kind is it? _____

52. DOES HE(SHE) HAVE ANY PARALYSIS OR ANY WEAKNESS OR TROUBLE IN USING EITHER ARM OR LEG?

(46) 1 ☐ Yes 2 ☐ No 3 ☐ Don't know

IF YES, what kind of trouble? _____

53. HAS THE CHILD'S HEALTH EVER KEPT HIM(HER) FROM HARD EXERCISE OR PLAY?

1 ☐ Yes 2 ☐ No 3 ☐ Don't know

IF YES:

A. Did a doctor say he should be kept from doing this?

1 ☐ Yes 2 ☐ No 3 ☐ Don't know

B. What was the condition that restricted the child? _____

C. Is he(she) restricted this way at present?

(49) 1 ☐ Yes 2 ☐ No 3 ☐ Don't know

Medical History of Youth—Parent's Questionnaire

CONFIDENTIAL — All information which would permit identification of the individual will be held strictly confidential, will be used only by persons engaged in and for the purposes of the survey and will not be disclosed or released to others for any other purposes (22 FR 1687).

DEPARTMENT OF
HEALTH, EDUCATION, AND WELFARE
PUBLIC HEALTH SERVICE
NATIONAL HEALTH SURVEY

MEDICAL HISTORY OF YOUTH
Parent's Questionnaire

Sample number

NAME OF CHILD *(Last, First, Middle)*	SEGMENT	SERIAL	COL. NO.

NOTE: Please answer the questions by checking the correct boxes or by filling in the blanks, as required. If a question is unclear leave the answer blank and draw a line around the question. A representative of the Public Health Service will collect your filled in questionnaire in a few days and she will help you answer the unclear questions. Thank you for your cooperation.

1. SEX	2. AGE	3. DATE OF BIRTH *(Month, Day, Year)*
1 ☐ Male 2 ☐ Female		

9. Has there been any serious health problem since he or she was one year old?

1 ☐ Yes 2 ☐ No 3 ☐ Don't know

IF YES: What and when? _____

_____

10. Is there anything about his or her health that worries you now?

1 ☐ Yes 2 ☐ No

IF YES: What is it? _____

_____

11. How would you describe his or her present health?

1 ☐ Poor 2 ☐ Fair 3 ☐ Good 4 ☐ Very Good 5 ☐ Excellent

IF POOR OR FAIR: What is the matter? _____

12. Does he or she now use any medicine regularly *(not counting vitamins)*?

1 ☐ Yes 2 ☐ No 3 ☐ Don't know

IF YES:

a. What is the name of the medicine? _____ 2 ☐ Don't know

b. What is it for? _____ 2 ☐ Don't know

c. Did a doctor say he or she should use it?

1 ☐ Yes 2 ☐ No 3 ☐ Don't know

d. How long has he or she been using it? _____

13. Has he or she ever broken any bones?

1 ☐ Yes 2 ☐ No 3 ☐ Don't know

14. Has he or she ever had any other serious injuries or accident?

1 ☐ Yes x ☐ No (IF NO, SKIP TO QUESTION 15)

IF YES:

a. How many? ☐ One ☐ Two ☐ Three ☐ Four or more

b. As a result of any accident did he or she have to stay in a hospital *(overnight or longer)*?

1 ☐ Yes 2 ☐ No

c. What lasting handicaps or damages, if any, did the accident(s) produce?

_____

_____

_____

15. Has he or she ever been unconscious?

1 ☐ Yes 2 ☐ No 3 ☐ Don't know

IF YES: For how long?

1 ☐ One hour or less 3 ☐ A day or m[illegible]

2 ☐ More than an hour but less than a day 4 ☐ Don't know

16. Which of the following operations or surgery has he or she had? *(Check all that apply.)*

1 ☐ Tonsils and/or adenoids taken out

2 ☐ Appendix taken out

3 ☐ Hernia *(Rupture)*

4 ☐ Other; what? _____

9 ☐ None

17. Has he or she ever been in a hospital *(overnight or longer)*?

1 ☐ Yes 2 ☐ No (IF NO, SKIP TO QUESTION 18)

IF YES:

a. What was the longest time he or she ever spent in a hospital?

1 ☐ A night to a week

2 ☐ Over one week but less than six months

3 ☐ Six months or longer

b. How old was he or she at that time? _____ years

c. Why was he or she there? _____

d. Did an adult family member spend the night with him (her) in the hospital most of the time?

1 ☐ Yes 2 ☐ No

18. Has he or she ever had (CHECK YES OR NO IN EVERY LINE).

a. Measles	1 ☐ Yes	2 ☐ No
b. Mumps	1 ☐ Yes	2 ☐ No
c. Chickenpox	1 ☐ Yes	2 ☐ No
d. Whooping cough	1 ☐ Yes	2 ☐ No
e. Scarlet fever	1 ☐ Yes	2 ☐ No
f. Asthma	1 ☐ Yes	2 ☐ No
g. Hay fever	1 ☐ Yes	2 ☐ No
h. Other allergies	1 ☐ Yes	2 ☐ No
i. Kidney trouble	1 ☐ Yes	2 ☐ No
j. Heart murmur or anything else wrong with the heart	1 ☐ Yes	2 ☐ No
k. Fit, convulsion, or seizure	1 ☐ Yes	2 ☐ No
l. Pneumonia	1 ☐ Yes	2 ☐ No

19. Below is a list of other diseases. Please read through it carefully and check the YES box if he or she ever had any of the following:

(a) Diabetes or sugar diabetes
(b) Rheumatic fever
(c) Polio (Infantile Paralysis)
(d) Epilepsy
(e) Chorea or St. Vitus dance
(f) Diphtheria
(g) Tuberculosis (T.B.)
(h) Cerebral palsy
(i) Meningitis or sleeping sickness

1 ☐ Yes 2 ☐ None of these

IF YES: Which?_____

_____

20. What is the most serious illness or disease he or she has ever had?

_____

a. How old was he or she when it started?_____ years

b. What did the doctor say about it?

The doctor said it was:

1 ☐ a mild case
2 ☐ a moderate case
3 ☐ a severe (critical) case
4 ☐ I don't remember what he said
5 ☐ No doctor saw the child

c. Did the illness (disease) leave any lasting effects?

1 ☐ Yes 2 ☐ No 3 ☐ Hard to say

IF YES: What were or are they?_____

_____

22. Does he or she wear glasses or contact lenses?

1 ☐ Yes, glasses 3 ☐ Yes, contact lenses

2 ☐ No, don't wear either

IF NO: Do you think he or she needs glasses?

1 ☐ Yes 2 ☐ No 3 ☐ Don't know

23. Has he or she ever had eye trouble *(except what is corrected by glasses or contact lenses)*?

1 ☐ Yes 2 ☐ No

IF YES: What was it? _____

24. Has he or she ever had an eye operation?

1 ☐ Yes 2 ☐ No

IF YES: What was it for? _____

_____

25. Have his (her) ears ever been damaged or injured in any way?

1 ☐ Yes 2 ☐ No

IF YES: In what way? _____

_____

26. Have his (her) ear drums ever been opened or lanced?

1 ☐ Yes x ☐ No

IF YES:

a. How many times: 1 ☐ Once 2 ☐ More than once

b. In which ear? 1 ☐ Left 2 ☐ Right 3 ☐ Both 4 ☐ I don't remember

27. Has he or she ever had any other kind of ear operation?

1 ☐ Yes 2 ☐ No

IF YES: a. What was it for? _____

b. Which ear? _____

28. Has he or she ever had a running ear or any discharge from the ears *(except wax in the ears)*?

1 ☐ Yes x ☐ No

IF YES:

a. How often? 1 ☐ Once 2 ☐ More than once

b. From which ear? 1 ☐ Left 2 ☐ Right 3 ☐ Both 4 ☐ I don't remember

29. In the past year has he or she had an earache?

1 ☐ Yes 2 ☐ No

30. Does he or she have any difficulty hearing?

1 ☐ Yes 2 ☐ No

31. Has he or she had any other ear trouble?

1 ☐ Yes 2 ☐ No

IF YES: What?_____

_____

32. Does he or she have any speech defect (*like stuttering, stammering, lisping, etc.*)?

1 ☐ Yes 2 ☐ No

33. Does he or she have a limp or other trouble walking?

1 ☐ Yes 2 ☐ No

34. Is there anything that prevents complete use of his (her) legs?

1 ☐ Yes 2 ☐ No

IF YES: What is it?_____

_____

35. Is there anything that prevents complete use of his (her) arms?

1 ☐ Yes 2 ☐ No

IF YES: What is it?_____

_____

36. Is he or she now prevented for reasons of health from taking part in hard exercise or play?

1 ☐ Yes x ☐ No (IF NO, GO ON TO QUESTION 37)

IF YES:

a. What are the reasons?_____

_____

b. Did the doctor advise this?

1 ☐ Yes 2 ☐ No

37. Was he or she ever prevented for reasons of health from taking part in hard exercise or play?

1 ☐ Yes 2 ☐ No 3 ☐ Don't know

Diagnostic Impressions (Examination of Child)

HEALTH EXAMINATION SURVEY—II

CARD COL. **DIAGNOSTIC IMPRESSIONS** CARD 09–3

(52) ☐ Apparently normal child with none of the findings below.

(53) ACCIDENT OR INJURIES ☐ 1 Yes ☐ 2 No

Physical Findings ..... Cause ..... Result .....

.....

(54) HEART DISEASE ☐ 1 Yes ☐ 2 No

Diagnostic Impression .....

.....

(55) ☐ 1 Congenital ☐ 2 Acquired .....

FINDINGS: ☐ History ☐ Thrill ☐ Murmur

☐ ECG ☐ X-ray ☐ Other

(56) NEUROLOGICAL, MUSCULAR AND JOINT CONDITIONS ☐ 1 Yes ☐ 2 No

Diagnostic Impression .....

(57) ☐ 1 Congenital ☐ 2 Acquired

FINDINGS (Describe) .....

.....

(58) OTHER CONGENITAL ABNORMALITIES ☐ 1 Yes ☐ 2 No

Diagnostic Impression .....

FINDINGS (Describe) .....

(59) OTHER MAJOR DISEASES ☐ 1 Yes ☐ 2 No

Diagnostic Impression .....

FINDINGS (Describe) .....

SUMMARY FOR MEDICAL REPORT TO PARENT OR PRIVATE PHYSICIAN:

A. ☐ None found

B. ACUTE CONDITION (Reported to parent) .....

.....

C. CONDITION (To be reported to private physician) ..... DIAG. IMPRESS.

(79-80) END CARD 09 | SIGNATURE

HEALTH EXAMINATION SURVEY—II

ENT EXAMINATION

CARD 09-1

EXTERNAL EAR

R L ☐ ☐ 1 No findings

☐ ☐ (6) (7) 2 Findings →

PINNA R L ☐ ☐ 1 Congenital; ☐ ☐ (8) (9) 2 Acquired (Describe)

AURICULAR REGION

R L ☐ ☐ 1 Posterior; ☐ ☐ (10) (11) 2 Anterior

R L ☐ ☐ Adenopathy; ☐ ☐ Operative scar; ☐ ☐ Fistula

AUDITORY CANAL

R L ☐ ☐ 1 No findings

☐ ☐ (12) (13) 2 Findings →

OCCLUDED

R L ☐ ☐ 1 Partially; ☐ ☐ (14) (15) 2 Completely

OCCLUDED BY:

R L ☐ ☐ Cerumen; ☐ ☐ Foreign body; ☐ ☐ Tumor; ☐ ☐ Polyp; ☐ ☐ Bony exostosis; ☐ ☐ Anomalous canal; ☐ ☐ Inflammation; ☐ ☐ Other (Describe)

DRUM

R L ☐ ☐ 1 No findings

☐ ☐ 2 Findings →

☐ ☐ (16) (17) 3 Not visible

R L ☐ ☐ (20) (21) 1 Dull; ☐ ☐ 1 Bulging; ☐ ☐ (24) (25) 2 Retracted

R L ☐ ☐ 1 Transparent; ☐ ☐ (22) (23) 2 Opaque; ☐ ☐ 1 Red; ☐ ☐ (26) (27) 2 Other discolorations

.....

DRUM MOBILE?

R L ☐ ☐ 1 Yes

☐ ☐ 2 No

☐ ☐ (18) (19) 3 Pneumatic otoscopy unsatisfactory

PERFORATED:

☐ ☐ 1 With discharge; ☐ ☐ (28) (29) 2 Without discharge; ☐ ☐ (30) (31) 1 Scars

R L ☐ ☐ Cholesteatomata; ☐ ☐ Tumor (Middle ear); ☐ ☐ Other .....

.....

E.N.T. 1

Summary of Diagnostic Impressions (Examination of Youth)

HEALTH EXAMINATION SURVEY—III

SUMMARY OF DIAGNOSTIC IMPRESSIONS

× ☐ Essentially a normal child with none of the findings below.

List all significant findings

CARDIOVASCULAR SYSTEM

1 ☐ NO FINDINGS
2 ☐ FINDINGS → List and Describe *(include ECG and X-ray findings if noted)*:

DIAGNOSTIC IMPRESSION

NEUROLOGICAL CONDITIONS

1 ☐ NO FINDINGS
2 ☐ NEUROLOGICALLY SUSPICIOUS BUT NO DEFINITE ABNORMALITIES *(List and Describe)*:

3 ☐ NEUROLOGICALLY ABNORMAL *(List and Describe)*:

MUSCULO-SKELETAL

1 ☐ NO FINDINGS
2 ☐ FINDINGS *(List and Describe)*:

DIAGNOSTIC IMPRESSION

OTHER SYSTEMS

1 ☐ NO FINDINGS
2 ☐ FINDINGS *(Describe)*:

DIAG. IMPRESS.

DIAGNOSTIC IMPRESSION

HEALTH EXAMINATION SURVEY—III

ENT EXAMINATION

EXTERNAL EAR (Except Canal)

R L
1 ☐ 1 ☐ NO FINDINGS
2 ☐ 2 ☐ FINDINGS →

R L
1 ☐ 1 ☐ OPERATIVE SCAR
2 ☐ 2 ☐ OTHER (Describe)

AUDITORY CANAL

R L
1 ☐ 1 ☐ NO FINDINGS
2 ☐ 2 ☐ FINDINGS →

Occluded:
R L
1 ☐ 1 ☐ PARTIALLY
2 ☐ 2 ☐ COMPLETELY

Occluded By:
R L
1 ☐ 1 ☐ CERUMEN
2 ☐ 2 ☐ OTHER (Describe)

DRUM

R L
1 ☐ 1 ☐ NO FINDINGS
2 ☐ 2 ☐ FINDINGS →
3 ☐ 3 ☐ NOT VISIBLE

R L
1 ☐ 1 ☐ DULL (OPAQUE)
2 ☐ 2 ☐ TRANSPARENT
1 ☐ 1 ☐ BULGING
2 ☐ 2 ☐ RETRACTED
1 ☐ 1 ☐ CALCIUM PLAQUES

R L
1 ☐ 1 ☐ RED
2 ☐ 2 ☐ OTHER DISCOLORATIONS
1 ☐ 1 ☐ FLUID

Perforated:
R L
1 ☐ 1 ☐ WITH DISCHARGE
2 ☐ 2 ☐ WITHOUT DISCHARGE
1 ☐ 1 ☐ SCARS

1 ☐ 1 ☐ OTHER FINDINGS (Describe) _____

DRUM MOBILE

R L
1 ☐ 1 ☐ YES
2 ☐ 2 ☐ NO
3 ☐ 3 ☐ PNEUMATIC OTOSCOPY UNSATISFACTORY

ORAL PHARYNX

1 ☐ NO FINDINGS
2 ☐ FINDINGS (Describe):

TONSILS:

1 ☐ **NOT VISIBLE**

2 ☐ **TONSILLAR TAGS PRESENT**

3 ☐ **TONSILS PRESENT—GRADE I**
(Within Tonsillar Pillars)

4 ☐ **TONSILS PRESENT—GRADE II**
(Outside Tonsillar Pillars but not Meeting in Midline)

5 ☐ **TONSILS PRESENT—GRADE III**
(Meeting in Midline)

E.N.T.

NARES

R L
1 ☐ 1 ☐ NO FINDINGS
2 ☐ 2 ☐ FINDINGS →

OBSTRUCTION:

R L
1 ☐ 1 ☐ ACUTE
2 ☐ 2 ☐ CHRONIC

OTHER SIGNIFICANT FINDINGS:

R L
1 ☐ 1 ☐ NO
2 ☐ 2 ☐ YES (Describe) _____

APPENDIX III

DEMOGRAPHIC AND SOCIOECONOMIC TERMS

Age.—The age recorded for each youth was the age at last birthday before the date of examination. The age criterion for inclusion in the sample used in this survey was defined in terms of age at the time of interview. Since the examination usually took place 2-4 weeks after the interview, some of those who were 17 years old at the time of interview became 18 years old by the time of examination. There were 23 such cases. In the adjustment and weighting procedures used to produce national estimates, these 23 were included in the 17-year group.

Race.—Race was recorded as "white," "Negro," or "other." "Other" races included American Indians, Chinese, Japanese, and all races other than white or Negro. Mexican persons were included with "white" unless definitely known to be American Indian or of a race other than white. Negroes and persons of mixed Negro and other parentage were recorded as "Negro."

Geographic region.—For purposes of stratification the United States was divided into four geographic regions of approximately equal population. These regions, which correspond closely to those used by the U.S. Bureau of the Census, were as follows:

Region	*States Included*
Northeast	Maine, Vermont, New Hampshire, Massachusetts, Connecticut, Rhode Island, New York, New Jersey, and Pennsylvania
Midwest	Ohio, Illinois, Indiana, Michigan, Wisconsin, Minnesota, Iowa, and Missouri
South	Delaware, Maryland, District of Columbia, West Virginia, Virginia, Kentucky, Tennessee, North Carolina, South Carolina, Georgia, Florida, Alabama, Mississippi, Louisiana, and Arkansas
West	Washington, Oregon, California, Nevada, New Mexico, Arizona, Texas, Oklahoma, Kansas, Nebraska, North Dakota, South Dakota, Idaho, Utah, Colorado, Montana, Wyoming, Alaska, and Hawaii

Family income.—The income recorded was the total income received during the past 12 months by the head of the household and all other household members related to the head by blood, marriage, or adoption. This income was the gross cash income (excluding pay in kind) except in the case of a family with its own farm or business, in which case net income was recorded.

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